Building and Equipment Number

Hospital Library
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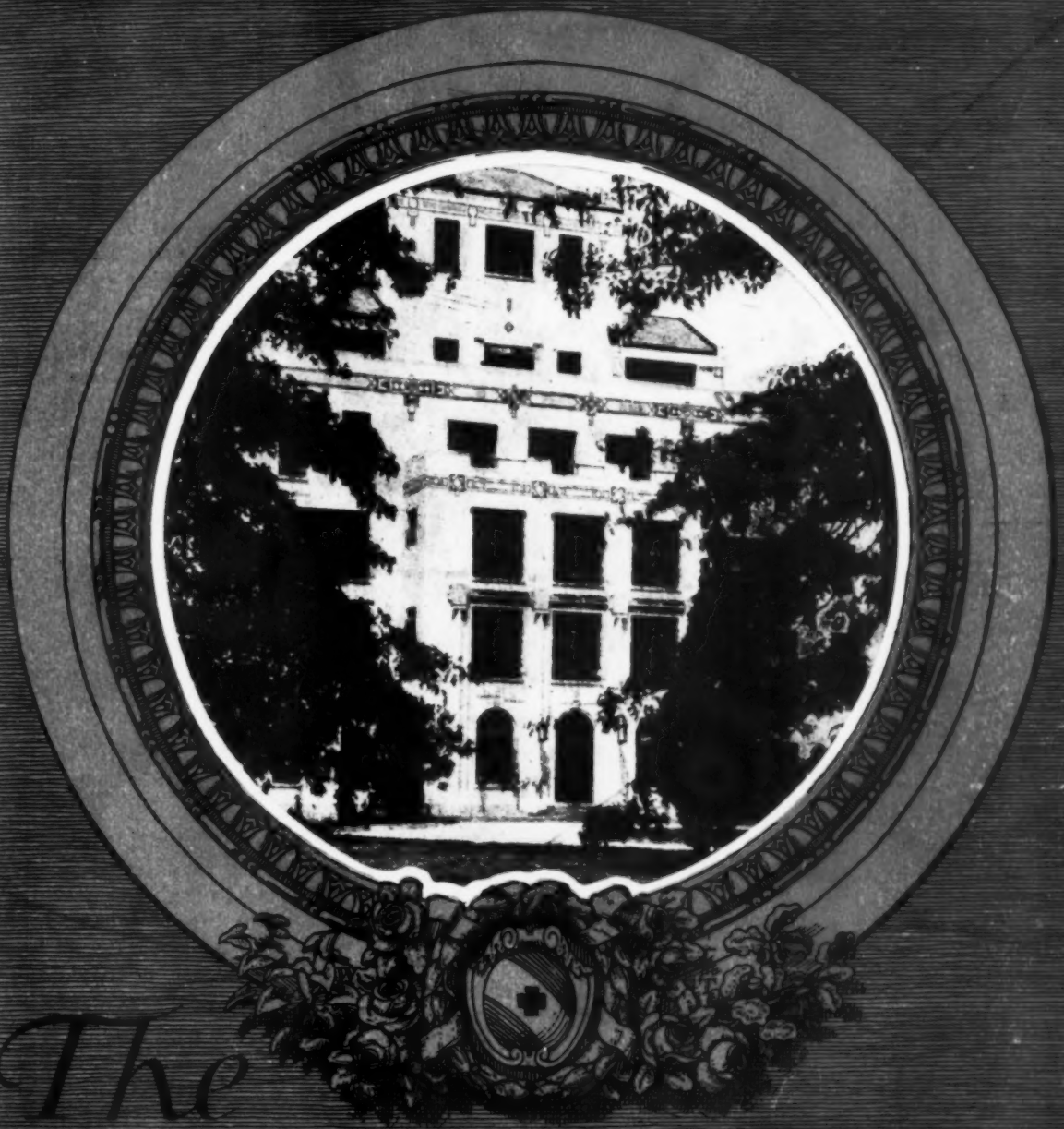

The MODERN HOSPITAL

Vol. XXXIV *March, 1930* No. 3

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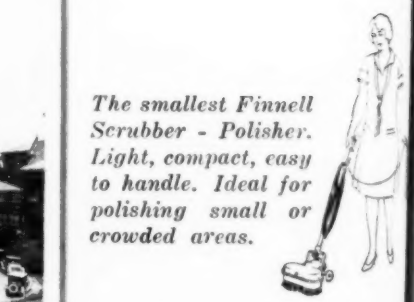

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In This Issue

Building and equipment problems that confront the modern hospital administrator are comprehensively treated in this issue. Miss Garrison, in the opening article, tells how the Hospital Library and Service Bureau serves the hospital field by providing necessary information for building committees, architects, consultants and superintendents.

In a survey of a typical county hospital, Doctor Doane has made an unbiased and critical study of the institution. The survey, together with his suggestions for modifications and changes in the present routine, will be found on page 61.

How the new buildings of the Montefiore Hospital Country Sanatorium are elaborately equipped to give treatment for tuberculosis and to provide for scientific study of the disease is the theme of the article on page 67 by Doctor Shamaskin in collaboration with the architects of the building.

Miss Pavek and Mr. Hoffman contribute an article on the new Alice Horlick Maternity Unit of St. Luke's Hospital, Racine. The illustrations for the article, which appears on page 77, show much of the modern construction and equipment that make the new building an efficient center for maternal care.

The Christian R. Holmes Hospital, Cincinnati, is a small hospital that has been economically planned to give the highest type of service at a reasonable cost to the patient. The architect, Mr. Hannaford, describes the new building in an article on page 83.

Sister Laurentine is justly proud of the beautiful nurses' home just completed at St. Francis Hospital, Pittsburgh, and in an article on page 91 tells how the comfort and health of the nursing personnel are provided for in the new building. Mr. Erikson, in the following article, describes the nurses' home from the architect's point of view.

SOME INTERESTING FACTS ABOUT MAROON RUBBER SHEETING

¶ Nowadays maroon as a color for rubber goods is quite general. . . . But Meinecke & Co. were the *first* to make it a symbol of quality and *not* merely a color. Meinecke & Co. put *merit* in maroon. Every maroon sheeting is decidedly *not* a quality sheeting. This distinction is important.

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, Administration and Maintenance of Hospitals and Sanatoriums.

Vol. XXXIV *March, 1930* No. 3

How to Use Package Libraries in the Building Program

By CHARLOTTE JANES GARRISON

Director, Hospital Library and Service Bureau, Chicago

HOW may the Hospital Library and Service Bureau best serve the hospital field? To what extent may a building committee, architect, consultant or superintendent receive assistance from its files?

Since July 1, 1929, the Hospital Library and Service Bureau has been administered by the American Hospital Association. A study of its function shows an active interest by representatives of every group. To extend the use of the library to every hospital, and especially to the earnest group engaged in planning, is the ambition of those in charge of the library.

How may the library be used by a board of trustees? Few school board members think of planning a new building without thoroughly studying the community, its needs and the possibility of future expansion. Expert advice is sought frequently in connection with new school planning. There is a growing tendency on the part of hospital boards to be advised by competent authorities. The thinking trustee seeks well founded information. The architect or superintendent performs a real service to the hospital by introducing his board or building committee to the Hospital Library and Service Bureau.

Publicity that is useful in creating friendship for the hospital project is developed in a series that has been compiled by a publicity expert. This series is frequently used by a committee engaged in planning a financial campaign. Plans and results of financial campaigns in other communities are available as is also material submitted by responsible campaign directors. Studies of hospital and health surveys of communities, such as Cleveland, Bethlehem, Pa., Cincinnati, Louisville, Ky., and Buffalo, N. Y., and of a number of state aided institutions of Pennsylvania, by nationally known authorities, are at the planner's service. A study of the standards of the ratio of hospital beds to population, of the hospital's relations with health agencies and of the weak and strong points of the community surveyed challenges the thought of the trustee or superintendent. The sympathy and comprehension of a trustee may almost always be gained by enlarging his knowledge of hospital affairs. Practical subjects of interest to committees are discussed in articles contained in package libraries on hospital sites, landscaping of grounds and sewage disposal. Later, as the hospital develops, the resources of the library will unfold more information.

The study of endowments is another subject of interest to an active trustee.

Never before have hospitals faced such a barrage of misunderstanding as they are facing to-day. Never has a more challenging task confronted the architect than that of building economically, efficiently and safely, with added demands of beauty and comfort for a luxury loving age. Much of his time must be spent with committees, physicians, the superintendent and department heads. First of all, he will try to learn their ideas and win their cooperation. Perhaps the most obvious use of the library is to supply to those who are interested a knowledge of the trend of hospital thinking.

Architects and consultants have been generous and interested in supplying material for the library. Plans have been contributed generously in the past, as well as reprints of articles published in architectural and hospital journals. More than 900 blue prints of all types of hospitals and accessory buildings form a valuable library for the use of those who are interested in construction. A file of the names of architects and consultants in geographical areas is maintained for the information of inquiring committees. A transcript of each architect's and consultant's services for the year has been kept for a permanent record in the library files. Recent bulletins, reprints, magazine articles, excerpts from annual transactions of the American Hospital Association all furnish opinions of specialists on construction, costs and other details of building.

An architect was recently speaking of the days before the establishment of this center of information. "Fifteen years ago," he said, "I was taking seriously my assignment as a junior in a firm of hospital architects. One of my jobs was to learn in a short time as much as possible about hospitals. There was no Hospital Library and Service Bureau—and little had been published on hospital construction. John Crerar Library, Chicago, was my camping ground and how I did work to find the little that was there! It makes one appreciate the strides that have been made."

A junior member of a firm was interested in planning efficient record rooms. He not only attended a series of meetings of record librarian associations, but sent for package libraries on the subject. After a long hospital siege, himself a patient, another architect began an intensive study of noise control in hospitals. Even the most experienced of hospital architects and consultants use the libraries for their special requirements.

Information on Hospitals Abroad

Has an architect a foreign commission? Only last month an Eastern architect thanked the library for assistance gained from a package library in planning a hospital in the Congo. Tropical hospitals are described, as well as institutions in Holland, England, Australia, New Zealand and other countries of Europe and Asia. Package libraries covering hospital subjects have been sent to hospitals, departments of health, governmental agencies and to individuals of every state in the Union, to all provinces of Canada and to countries in South America and Europe.

Consideration has been given to the needs of new departments. Physical therapy and occupational therapy departments, educational buildings for the nurses' school, recreation rooms and cafeterias in mental hospitals are all described in bulletins and literature available on inquiry.

Newer developments in children's hospitals, maternity departments, convalescent homes and other institutions are reflected in the additions to the package libraries. Information on decorations and furnishings and color in the hospital has been compiled for the use of architects and superintendents. Radio and music in the hospital are considered in a special package library. Information on central service is available.

Numerous inquiries on nurses' homes are made by boards and architects. Package libraries, illustrated, many carrying plans and descriptions, are voluminous and range in size from the modest home for the small school to the splendid structures attached to university and city hospitals.

Suggestions on Construction Are Plentiful

Basic principles in hospital construction, technical data on planning, selection of fixed equipment and the construction and equipment of general hospitals from ten to thirty-five beds up to 500 beds and over are all considered.

Special subjects considered in a number of package libraries are costs, lighting, electrical equipment, heating and refrigerating, acoustics, the laundry department, postmortem rooms, heliotherapy, laboratories, film storage and x-ray rooms and oxygen chambers. An equipment study contains valuable information concerning articles used by the hospital.

Never in the history of the country has industry so looked into the ways of caring for its workers. A realization of values as well as a quickened conscience has promoted the establishment of welfare departments, clinics for health examinations and, in many instances, hospitalization for employees. Studies on the utilization of existing hospitals, on clinics and hospital buildings are available. Fraternal organizations have formulated notable hospitalization and child care policies during the last two decades. Numerous juvenile homes, colonies and tuberculosis sanatoriums have resulted. Brotherhoods of workers, the vaudeville group and great corporations, such as insurance companies, have provided sanatorium cottages or complete sanatorium units. The concern for the crippled child is shown by the establishment of a chain of hospitals for crippled children by a great fraternity, and the creation of a children's foundation by a Midwestern financier. Surveys on crippled children of the cities of New York and Chicago are in the files of the library. Nor has the special mental or state hospital, or the hospital for chronics and incurables

been forgotten. Everything that has been written on these subjects since 1920 that is procurable is in the files and is accessible in package libraries.

With wealth has come to this country an unparalleled era of philanthropy. Impressive are the studies that have issued from the foundations, particularly the Rockefeller, Duke and Commonwealth Foundations.

The problem of circulation of material is well considered in the words of Richard M. Pearce, director of medical sciences of the Rockefeller Foundation: "In the present period of unprecedented progress and readjustment in medicine, the problem of the dissemination of information is becoming increasingly difficult and perplexing. In the field of research, productive effort is so abundant that it is quite impossible for an investigator to keep in touch with general literature except through abstracts or reviews. Moreover, lengthy papers, especially those dealing with problems of administration, equipment, methods, and maintenance of laboratories and clinics, are year by year more difficult of publication. This is especially true of contributions in the field of medical education, which, in that they are fundamental to all progress, are in the long run of prime importance. Plans of new buildings, methods of instruction, and experiments in teaching are usually published in local journals or for distribution as commemorative volumes in connection with a dedication or inauguration of new facilities. Such material, naturally, is not widely disseminated. Likewise, the traveler to other countries, interested though he may be in fundamental problems of medical education and returning with first-hand information of new buildings and new methods, can reach only a few associates.

Reports of the Various Foundations

"To avoid some of these difficulties, it has seemed advisable to collect and publish from time to time brief descriptions of clinics, laboratories and methods of teaching in different parts of the world in order that the information in convenient form may be brought to the attention of those most interested."

Of increasing importance to the hospital field is the publication of the annual bulletin of the Duke Foundation. Part I contains information on hospital conditions and trends in the Carolinas in particular and in the country in general. Part II pertains to professional and hospital business problems and is for the hospital worker. Part III is devoted to matters of construction, carrying photographs, zinc etchings, costs and brief detailed description of comparative plans. The division of rural hospitals of the Commonwealth Fund is making a study of the problem of medical and public health service in small towns and in the open country. The last annual report of the fund says, "It is an effort to change the community standard of living in respect to the care of the sick, the prevention of disease and the protection of health." The carefully wrought rural hospital plans for six centers of the United States are of particular value. Interest in the small community hospital is growing. The studies of rural needs by these foundations have heightened the importance and dignity of the general practitioner and of the rural hospital.

Reports of these foundations are supplied by the bureau in generous numbers for the use of inquirers. Plans of the hospitals are available for inspection in the library. Package libraries on these developments are provided on request. Information on the medical program of the Julius Rosenwald Fund, which is studying the participation of the hospital in a program for the patient of moderate means, may also be obtained.

The Superintendent's Listening Post

Lord Rothschild admonished that the more one speaks, the less one hears, and that one learns only by listening. The listening post of the superintendent and his associates is the Hospital Library and Service Bureau. The files of the library are an open forum on the problems that have confronted superintendents. How other communities have succeeded or failed in the promotion of certain programs or in the adoption of certain equipment or technique is of help to administrators in understanding their own problems. What superintendent has not felt that he worked alone, with his insurmountable problems? The promotion of interchange of ideas and experience, a sense of sharing the common background of others working toward the same goal—these are the fruits of participation in the services of the Hospital Library and Service Bureau.

Is there, for example, an annual report to be compiled? A selection of reports from similarly organized hospitals may be requisitioned. Is the medical staff ambitious for a medical bulletin? A list of similar publications may be submitted with the addresses of the editors. Is there a question of ethical publicity? Specimen news bulletins of hospitals and a package library are forthcoming. Attractive booklets for the information of patients and visitors and bulletins concerning the school of nursing will be forwarded to those who ask. Assistance in the preparation of papers and articles is gladly given.

More and more are hospital and civic leaders emphasizing the need of public contacts for the

superintendent. Understanding of the entire problem of hospitalization must be fostered so that responsibility may be shared by the community. A young nurse superintendent in North Dakota was asked to make a talk at a luncheon meeting of a service club. A list of outstanding talks on hospitals was sent to her from the library. The effort of the newly appointed superintendent brought an appreciation of the work of the hospital in the county. Other material of benefit in advancing public knowledge of the hospital is the library on exhibits, county fairs, pageants, publicity and Hospital Day. Subjects of interest in administrative affairs are staff organization, constitution and by-laws, budgets, liability and hospital law.

An eager superintendent in Pennsylvania asks how to make the medical library attractive to students. An increase in requests for suggested lists for hospital libraries is noted. A New York superintendent asks for a reading list for his own use; another requests a list of books on feeding the hospital group. A business manager checks on the practice of supplying gloves and sutures to surgeons. From New Jersey comes a request for the loan of a late text on accounting. A frank desire for personal improvement is seen in frequent requests for reading courses on hospital administration. Increasing in number are inquiries from student nurses. Distance is no barrier. A post card request receives the same attention as a personal call in the library. Questions on nursing biography, the varied branches of the profession, group nursing, case history study, student government and other inquiries are significant. Package libraries on dietetic problems are in constant circulation.

Institutional convalescence and standards of care for convalescent children are discussed in valuable libraries for those interested.

Inquiries Are Colorful

Colorful are the inquiries that come to the desk of the director. Drummond's definition of happiness in work,

"Regret at leaving it at night,
"Joy in meeting it in the morning."

describes the director's feelings as she approaches the mystery of morning mail. Typical of queries are some of the following from widely separated centers. From Nebraska comes a query on the women's auxiliary; from Michigan, on contagious hospitals; from West Virginia, on small hospital administration; Denver is rebuilding and wants kitchen and cafeteria plans; New York inquires about medical care in rural districts and a great philanthropist in Detroit is interested in old people's homes. A chamber of commerce secretary asks for publicity methods in assisting a community hospital. A Jesuit priest asks for plans for a 150-bed hospital, and a Canadian superintendent is interested in a physiotherapy layout. From a great clinic comes an inquiry on how patients are referred by a dispensary to private physicians. Two groups of student nurses write from Louisiana for biographical material for a nurses' club. A Sister in Nova Scotia requires information on a library on accounting, collection of bills, color schemes, food costs, library service, fire drills and care of floors. A nationally known manufacturer is contemplating the creation of a foundation of two million dollars to help the mechanic and semiskilled laboring class pay its hospital bills. His representative, a business man acquainted with the problems of hospitals and labor, comes to headquarters to receive information on other operating foundations and to review his preliminary plan. Birmingham, England, a hospital center, questions regarding community chests.

Administrators Are Asked to Cooperate

Superintendents may materially assist the bureau by sending copies of their annual reports, school of nursing bulletins and any other publicity of interest. Copies of hospital and nursing journals are greatly appreciated.

New package libraries attempt to reflect the trends of the professions. New topics or additions are on the cost of medical care, social and economic factors, the group clinics, supplementary information on the laundering of blankets, reports of foundations and reference lists of comments on hospital administration. To keep abreast of the reading requirements of the group is an ambition of the director. New package libraries for hospital social workers have been prepared in cooperation with the executive secretary of the American Association of Hospital Social Workers.

The services of the bureau are without cost to the inquirer. No charge is made for the use of package libraries, a loan of books or any other service. It is the desire of the library committee that all workers in the field use the facilities.

The most important person in the hospital is the patient. To assist those who are endeavoring to make his stay a little shorter, a bit more comfortable, a little less expensive and his recovery more complete is the aim of the Hospital Library and Service Bureau. The treasures of the library may be used for the benefit of the "most important person" only through the medium of the trustee, the architect and the superintendent.

A Sanatorium Unit for Tuberculous Children Only

The New Louis Heineman Building of the National Jewish Hospital, Denver, Colo.

THE essence of human existence is progress, and progress is the basis of change in our ideas as well as of change in our demands. This can be no better exemplified than in the changes that have taken place in the treatment of tuberculosis and especially in the part played by the sanatorium in this treatment.

Most sanatoriums in America essentially began by treating young adults primarily, because the onset of the disease was believed to have its inception with them, and it was agreed that the greatest benefit resulted from treating the so-called incipient case. Thus the cottage plan had its birth in Dr. E. L. Trudeau's fertile mind.[1] Soon, however, the sanatorium became the haven of the advanced case. To keep pace it had to revert to the hospital plan, the outgrowth of Brehmer's original ideas which were elaborated upon as the surgical phases of treatment unrolled themselves.

In certain European countries, especially in France, the stress was placed upon prevention in accordance with the Behring conception of practically exclusive childhood infection of all mankind, expounded by him in the eighties before human and bovine bacilli had been differentiated. From this foundation grew the tuberculosis preventorium which attempted to ward off the re-

View of patients at lunch on the heliotherapy deck, protected from the wind behind the eight-foot protecting south wall, equipped with windows that permit the passage of ultraviolet rays of sunlight.

sults of direct contact and family infection and to care for those children whose contact was certain and whose parents in many cases were taking sanatorium treatment.

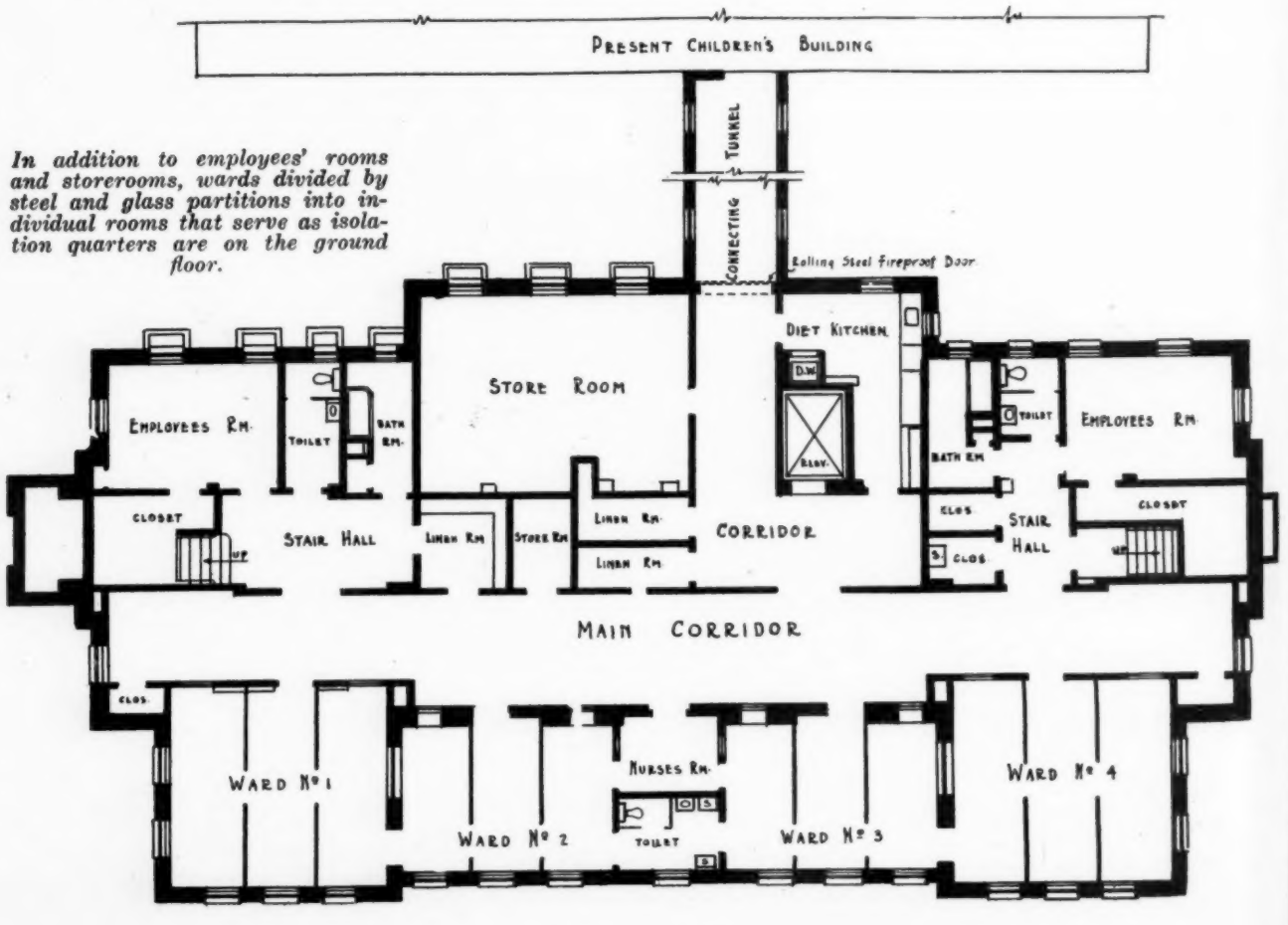
The first American preventorium was established in 1909 at Farmingdale, N. J. Rollier, it will be remembered, opened his first heliotherapy clinic in Leysin, Switzerland, in 1903. The endemic contagiousness of tuberculosis as amply proved by Opie's recent studies[2] precluded keeping the manifestly tuberculous child in close proximity to the preventorium child, and the urgent need of facilities for the surgical cases of tuberculosis made a demand that could not usually be fulfilled by the adult sanatorium. That separate facilities for children in sanatoriums are necessary is evident from the increasing demands for such facilities, the need for which is shown by such appalling findings as those revealed by a survey of Philadelphia, which disclosed that 2 per cent of the so-called healthy school children in that city were actively tuberculous.[3]

All Types of Tuberculosis Treated

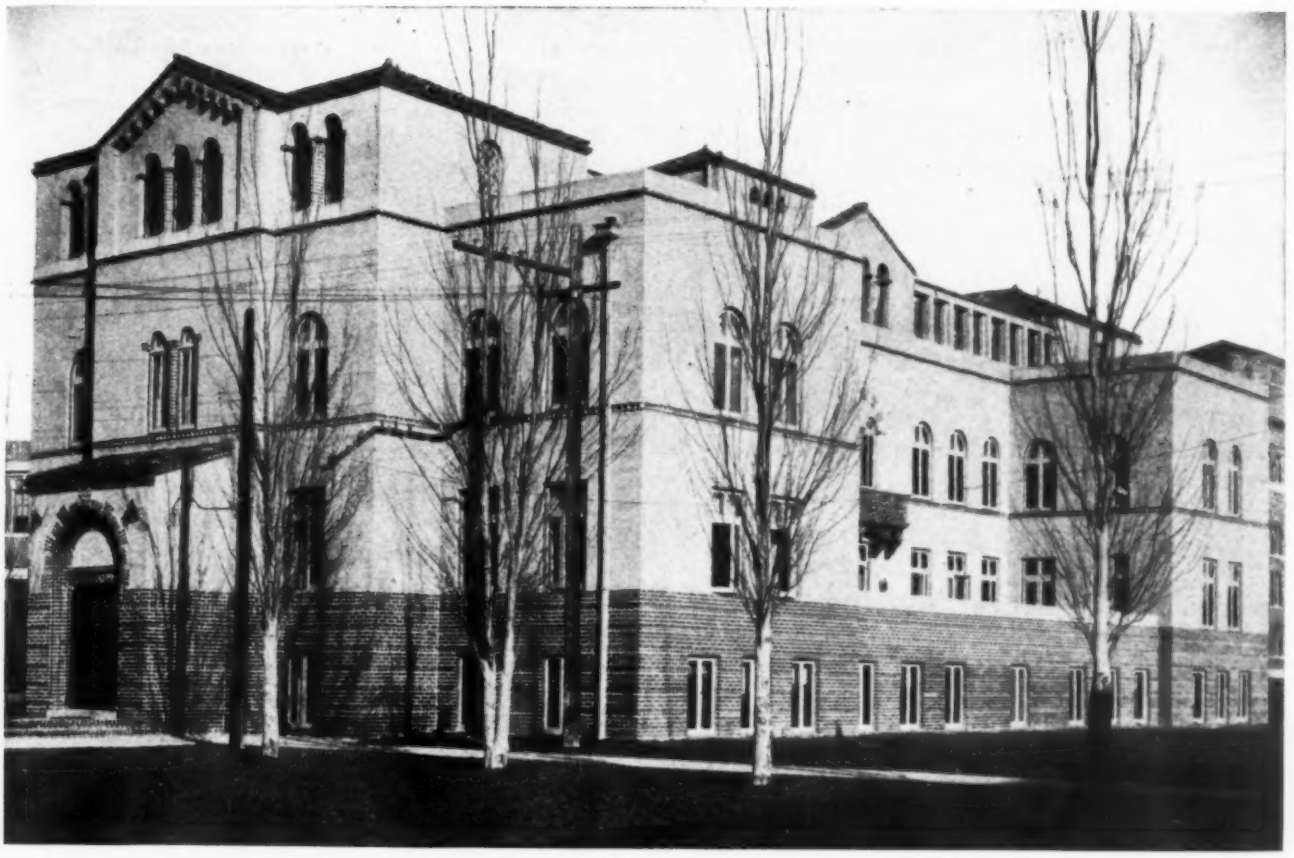
The board of managers of the National Jewish Hospital at Denver is keeping abreast of the times[4] by fulfilling to the best of its ability its pledge to help eradicate tuberculosis through its investigative work and to mitigate the suffering of those afflicted with tuberculosis. The board first met the problem of treating the early consumptive through the sanatorium.[5] It has extended this work to all types of cases by the addition of the B'nai B'rith Infirmary Building[6] which has facilities for all types of surgical work, heliotherapy and physical therapy as well as for the most advanced methods of diagnosis, including all branches of clinical pathologic work, electrocardiography and roentgenology.

Preventorium Built in 1920

Confronted with the serious problem of the child in tuberculosis and having carried on an unsatisfactory program of preventive therapy for children in the annexes of other buildings, the management of the institution was able in 1920 to erect the Hofheimer Children's Building,[7] the gift of Mr. and Mrs. Nathan Hofheimer. This was the first free tuberculosis preventorium and children's tuberculosis hospital established in the Rocky Mountain Region. In spite of the excellent construction and equipment of the original building itself, adequate porch facilities for sun exposure were lacking and no satisfactory provision had been made for the play and recreation of the children during inclement weather or dur-



In addition to employees' rooms and storerooms, wards divided by steel and glass partitions into individual rooms that serve as isolation quarters are on the ground floor.



This view of the Heineman Building shows the southwest exposure and the front entrance.

ing the periods between their sojourns in the sun. The addition of the new solar treatment porch and the large recreation and playroom in 1924 amply fulfilled these requirements.

However, there still remained the problem of housing the tuberculous child in the hospital. Not only the child with pulmonary tuberculosis had to be considered but also those children with bone and joint tuberculosis. It thus became desirable to provide special equipment to treat these conditions satisfactorily.

New Sanatorium Occupied in October, 1929

The beneficence of Louis Heineman, Jamestown, N. Y., in 1927 made possible the fulfillment of this ambition on the part of the board of managers of the National Jewish Hospital and in the Fall of 1928 plans were laid for the construction of the Louis Heineman Building for Tuberculous Children, to be a separate building but connected with and a part of the children's group at the hospital. The cornerstone was formally laid on February 5, 1929, and the first patients were admitted October 21, 1929, just eight years after the opening of the Hofheimer Preventorium. This marked another decided advance by the National Jewish Hospital at Denver in the treatment of the tuberculous child.

The Louis Heineman Building for Tuberculous Children is the sixteenth building of the National Jewish Hospital group. The building is primarily a four-story fire resistive structure, with concrete slabs and beams and finished floors of terrazzo, designed in an Italian Romanesque style to harmonize with that of the B'nai B'rith Infirmary building. It differs, however, from that building in that it is of brick construction covered with a cream colored stucco, on a concrete foundation. The ground, the first and the second stories house the hospital parts while the third story is primarily a heliotherapy deck. The building stands forty-four feet south of the Hofheimer Children's Building, and is connected with it by means of a tile roofed brick and stucco corridor, forty-four feet long and about eight feet wide, that unites the ground and first floors of the New Heineman Building with the basement and first floor of the Hofheimer Children's Building, thus completing the children's group of buildings.

Heliotherapy Deck on Top

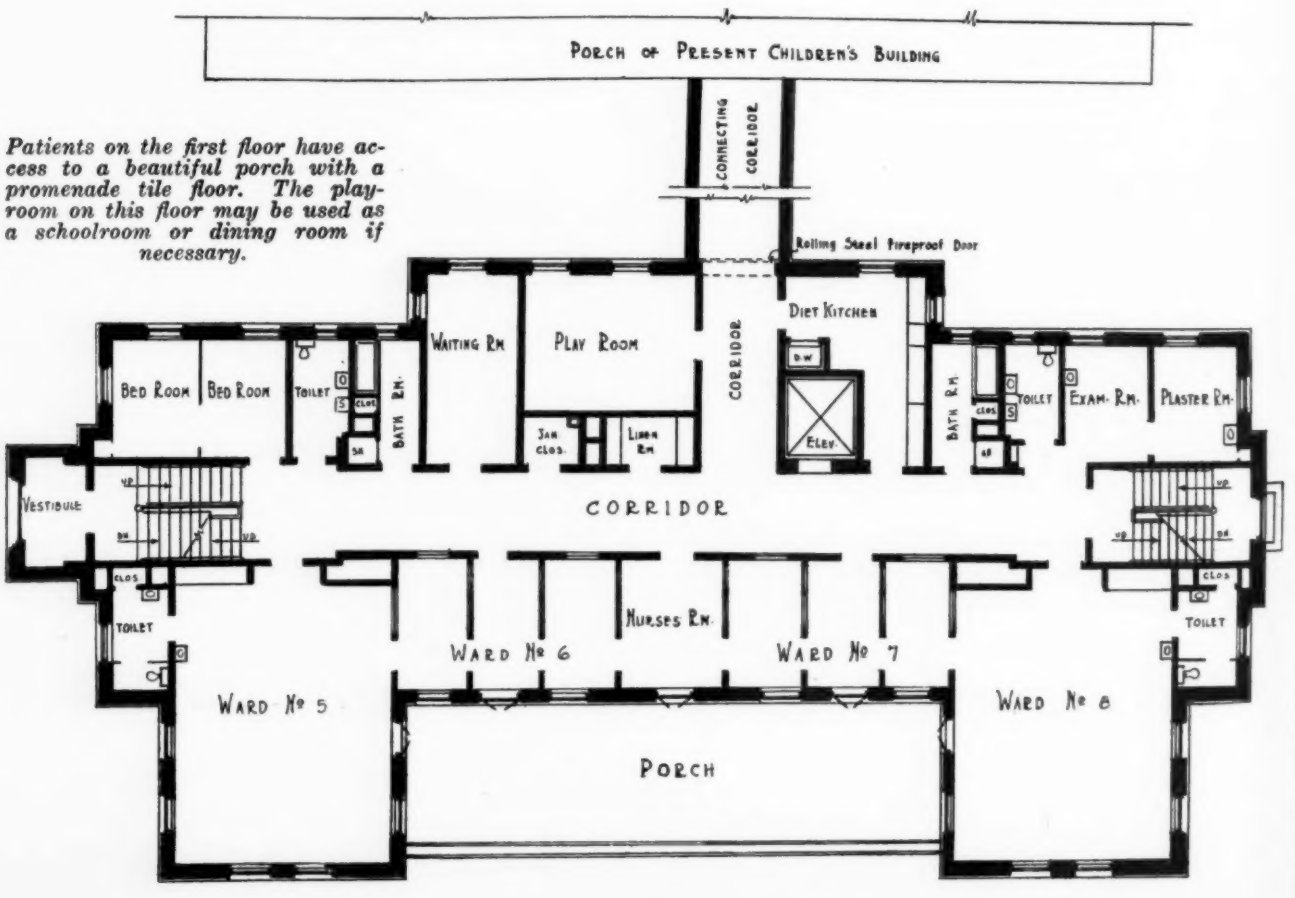
The front of the new Heineman Building faces west toward the main hospital grounds while the eastern aspect of the building faces Colorado Boulevard and the B'nai B'rith Infirmary Building across the boulevard. The building is 127 feet long and sixty feet wide and is topped by the heliotherapy deck above which stands, in striking

beauty, the tile covered penthouse containing the machinery of the main passenger elevator and the fans for ventilating the building. At either end of this floor are the tile covered unenclosed air bath decks that make possible for the children invigorating air baths in the open, at the same time protecting them from the direct rays of the sun.

Facilities for Sixty-Six Children

The building has facilities for sixty-six children, twenty-two being housed on each of the three floors below the heliotherapy deck. Besides the numerous windows, the building is provided with three distinct ventilating systems operated by separate fans in the penthouse. One system supplies the isolation wards on the ground floor, one the lavatories, nurses' duty rooms, janitors' closets and diet kitchens and the third supplies general room ventilation. A steel and concrete stairway at each end of the building connects all the floors. The east stairway connects with the heliotherapy deck. In addition, a dual control automatic passenger elevator serves to convey the patients, including those who are bedridden, from any floor to the heliotherapy deck. On each floor is a diet kitchen equipped with dumb-waiter service, a porcelain commercial dishwasher and sink, a porcelain drain board, a monel metal steam table, a gas range and an electric refrigerator. Each floor has also a commodious janitor's closet with a large porcelain slop sink. All the outside walls of the building are of brick, covered with stucco, while all inside walls are hollow tile partitions. The partitions in the wards are of steel and glass.

All the windows on the three floors below the heliotherapy deck are wood sash in wood frames. They are hinged to swing out. A gear control operated by a hand crank from the inside of the room for each individual window permits the opening or closing of the window without disturbing the copper (inside) screen which can remain closed while the window is adjusted. The box and spring for the screen are above the windows in an easily accessible receptacle. Radiators are contained in radiator recesses below all the windows. The majority of the wards and rooms have a southern exposure. In all the wards and rooms are electrical unit plates three feet above the floor. A bracket light five feet above the floor has been placed at the head of every bed. Ceiling lights in the wards and rooms are general and night lights combined. At the end of each corridor are exit lights. The east staircase extends from the ground floor to the heliotherapy deck while the west staircase terminates on the second floor. All shower stalls are terrazzo built



Patients on the first floor have access to a beautiful porch with a promenade tile floor. The playroom on this floor may be used as a schoolroom or dining room if necessary.

These children, in a double ward, may enjoy their toys and books while in bed.

over lead pan and are supplied with a special drain.

On the heliotherapy deck all windows are made of special steel sash and equipped with adjustable glass windows that permit the passage of the ultraviolet rays of the sunlight and at the same time protect the patients against an undesirable wind. The south wall is stucco outside and cement plaster inside, and the floor of the deck is promenade tile. The open deck slopes to openings in the south wall for drainage while the covered spaces look out upon the roof at each end through cement grilles that are artistically outlined.

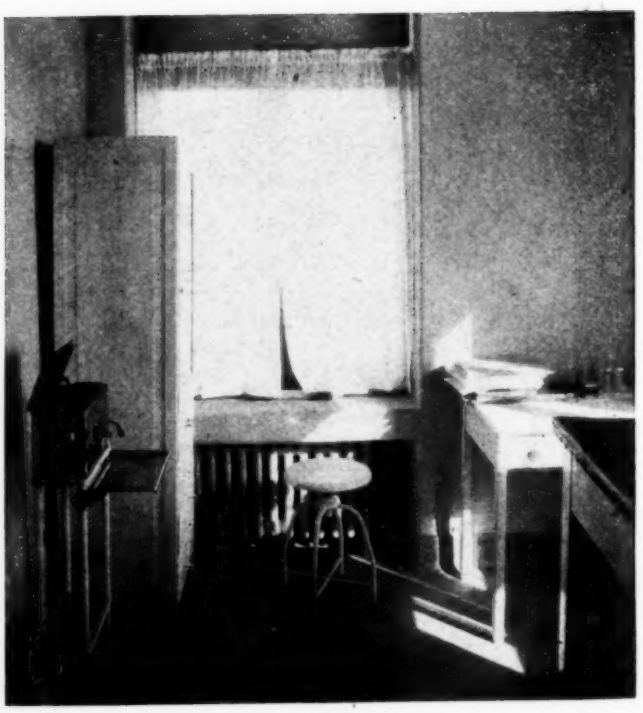
Floors Have Similar Arrangements

On the second floor, there are four wards that front south, two of these at each end being general wards and the two central wards being divided into three private rooms separated by steel and glass partitions with steel and glass doors extending to a height of seven feet from the floor. Between the two center wards is the attending nurse's room from which the nurse is able to see from the east to the west end of the building through the glass partitions, giving her practically constant control of the floor. On the north side of this floor are two double bedrooms, one at the east and one at the west end of the building. Between these are a large playroom that is also used as a schoolroom, a dining room and a diet kitchen.

The first floor of the Heineman Building is in general a replica of the second floor except for differences in minor details, such as the east double room which is devoted to facilities for the resident physician's office and examination room, and the adjacent plaster room. There is no private dining room on this floor, but there is an attractively appointed waiting room or reception room. The playroom on this floor may be used as a schoolroom or it may be used as a dining room if necessary. The first floor on the southern side opens on a beautiful porch with promenade tile floor. Patients on this floor have ready access to this porch through a series of double doors that open into the four south wards. The main corridor of this floor is continuous on the north side with the connecting corridor to the Hofheimer's Children's Building from which, in case of fire, it may be closed off by means of a rolling steel fireproof door which closes automatically or which may be closed by hand.

The ground floor of the Heineman Building resembles essentially in its south exposure part the first and second floors of the building in that it is

At either end of the heliotherapy deck are tile covered unenclosed air bath decks, illustrated above, where the little patients may take invigorating air baths in the open, at the same time being protected from the direct rays of the sun.

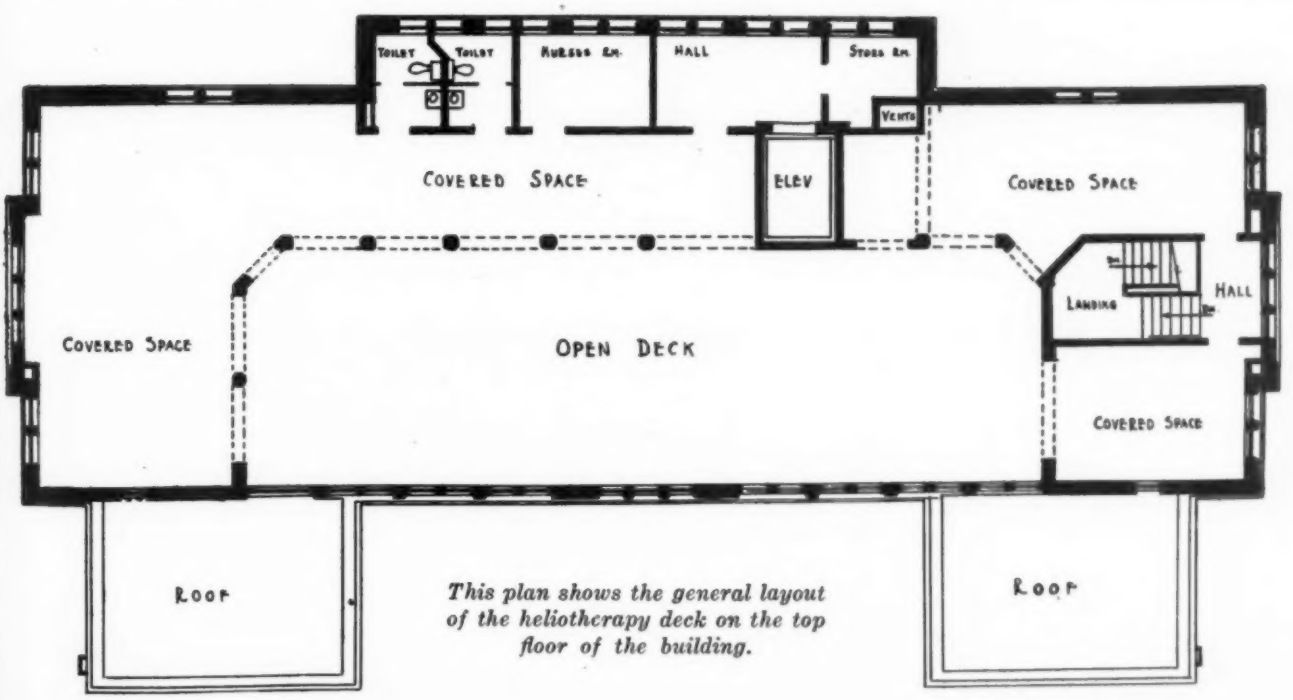


The well appointed physicians' examination and surgical dressing room, shown at the left, shows in detail the modern furnishings and equipment that fulfill all the requirements of a hospital that cares for tuberculous children of all types.

These boys, who have various forms of tuberculosis, enjoy their sunny cheerful ward.

divided into four wards. These wards, however, are arranged by means of steel and glass partitions into individual rooms designed for and to be reserved as isolation quarters. The north half of this floor is arranged for employees' rooms and storerooms.

The main west entrance to the building is intermediate between the ground and first floor and passes through a decorative vestibule with a perforated composition grille on each side. These grilles contain radiator recesses in front of asbestos plaster and above are two large bronze tablets. Guarding this entrance are two large glass and steel open grille doors with elaborate leaf ornaments. A semicircular brick step and platform lead to the west main entrance. The east rear entrance to the building, though not as elaborate as the main west entrance, is also in keeping with the substantial structure of the building as a whole. It consists of brick steps and a steel and glass square sectional door that is heavily constructed but easily operated. Both the east and west entrances are topped by ornamental amber electric lights, one above each side.



This plan shows the general layout of the heliotherapy deck on the top floor of the building.

The ward and room furnishings and equipment of the Heineman Building are modern and up-to-date and fulfill all the requirements of a hospital that cares for tuberculous children during all stages of treatment and convalescence. The entire building is equipped with all metal surgical beds. These are supplied with cranks at the foot for the graduated adjustment of the springs at both the head and the foot. Each bed is supplied with an overbed type adjustable table, serviceable both for eating and reading purposes. The chairs in the patients' wards and rooms are all metal chairs with all metal cane type seats. The furniture contributes to a warm homelike atmosphere. On the first floor the furniture is of mahogany color while on the second floor it is of walnut. The wall decorations and colors depart from the usual hospital white and are of cheerful warm varied tones. The nurses' rooms are equipped with all metal chart file tables with "out of sight" charts, an all metal instrument case, and the usual minor equipment used in such hospital rooms. The entire building is wired for radio with outlets at each bed for ear phone connection. Radio equipment has been installed.

Thus the National Jewish Hospital has acquired another effective weapon for combating and overcoming the infirmities caused by the great white plague. Thus has that true philanthropist, Louis Heineman, built a monument to the everlasting benefit of mankind.

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Making Institutional Beds Serve the Greatest Number of Persons

In many institutions a rule exists which requires that no ward bed shall be occupied longer than sixty days unless an extension of time is granted by the trustees.

This regulation represents an effort on the part of the hospital's governing board to make each hospital bed serve the greatest possible number of people during the calendar year. The medical director of the institution receives a report at the end of each thirty days showing the length of stay of each patient admitted earlier than thirty days prior to the report. He is required by the rules of the hospital to visit personally every such patient as well as to interview the physician in charge so that he may form some opinion as to whether an extension of time should be granted. Patients whose length of stay in the institution has been lengthened by a surgical accident, such as an infection or any other similar condition, should be permitted to remain until their condition warrants their removal from the hospital. Possibly patients who at the end of sixty days give no promise of early recovery should be removed to more suitable surroundings.

Often the best time to judge the probable length of a patient's stay in the hospital is at the time of his admission. Hemiplegics, chronic arthritics and other nonacute patients are usually difficult to discharge from the hospital. Of course, no hospital will refuse to admit a patient suffering with an acute cerebral hemorrhage because treatment at the time may be the means of saving his life.

Staff members sometimes give evasive diagnoses in their desire to secure admission for chronic patients. When such patients are received a definite removal time is often set. The board of trustees certainly has a right to demand a rapid turnover in beds and the enforcement officer of this rule is usually none other than the medical officer in charge. To maintain chronic patients for a long period of time is not only expensive but it also makes difficult the fulfillment of the hospital's full obligation to the public.

Should a Hospital Doctor Ever Withhold Treatment From a Patient?

In an Eastern hospital, a patient apparently deranged committed murder and turned the weapon upon himself, inflicting wounds not fatal at once but sufficiently grave to point to his death within a short time. The details of this patient's act were so gruesome that a feeling of revulsion on the part of all those brought in contact with the patient was difficult to conceal. The director of the hospital suspected that the physicians in charge, either because of the hopelessness of the case or because of circumstances peculiar to the patient, were withholding active treatment. What is the correct attitude for him to assume under such conditions?

This problem reaches deeply into the realm of medical ethics and is one that can find its solution only in the common sense and the consciences of the physicians concerned. If by stimulation and other supportive treatment this patient could be made to recover, the state would certainly face the expenditure of many thousands of dollars in the trial and punishment of the culprit. But it must be remembered that neither the physician nor any representative of the hospital has the right to sit as a judge to decide the punishment of such a patient, irrespective of the source of his wounds and notwithstanding the attitude of the public generally. A physician is bound by his professional oath to save life at whatever cost to him or to the institution in which he works. Even in the presence of an apparently hopeless situation, the outcome of such a case is never certain. The physician's judgment can only be exercised in ordering those medicaments which he deems possibly life saving.

The question of expense to the state in establishing the guilt or innocence of the patient and the circumstances surrounding his injuries are entirely extraneous to the sworn duty of the doctor. If the physicians withhold treatment for any other reason than that of the medical good of the patient they are violating the correct precepts of medical practice.

Surveying a County Hospital—A Report and Suggestions

By JOSEPH C. DOANE, M.D.
Medical Director, Jewish Hospital, Philadelphia

WHEN a hospital board of trustees becomes perplexed as to the efficiency, functioning and justification of the expense of the institution, it often calls in consultation some one from without the community to make an unbiased and yet critical study of various angles of the hospital's work. Such a board usually desires to be informed concerning the following questions:

Is its hospital rendering to the community a modern scientific medical service such as is due and expected by a twentieth century public?

Is this service being rendered at the least possible expense to the community?

Is there preventable lost motion in the functioning of the hospital?

Are there financial leaks that can be stopped?

Can the hospital be of greater service and is it possible to furnish this service for less money?

Such a study was the object of a survey I made of the work of the Exx County Hospital, with which I have been familiar for some time. I consider that the hospital has an unusually well constructed and well equipped physical plant and that the members of the personnel are earnest and hard working.

A chart of organization was drawn up by the director and presented to me for study. In the main, the principles of good organization have been pictured in this chart.

Because the present director does not have a medical degree, it seems justifiable for the medical executive committee to perform certain duties that are often delegated to the medical superintendent.

Administration Lines Center Round Director

It is proper for the director of the hospital to be present at all meetings of the medical executive committee and to give advice and information upon request. The basic lines of organization which have been proved sound and which direct that there shall be no parallel administrative lines within the hospital, but that all such lines shall converge at the superintendent's desk, can be fulfilled if the director is thus made a part of the functioning of this committee. Matters concerning the conduct of the school for nurses at the hospital should not come under the jurisdiction of the director. When policies that have been discussed by the directress of nurses with the training school committee are first brought to the attention of the director at board meetings, friction and misunderstanding often result. On the other hand, matters concerning the school for nurses should be discussed by the director with the directress of the school prior to their presentation to the board of trustees.

Daily Per Capita Cost Is $6.25

The board of trustees should require that all matters pertaining to the conduct of the hospital proceed to the board over the superintendent's desk. It is recommended that such a revised chart of organization be framed and prominently displayed in each department of the hospital.

The cost of conducting a hospital to-day is markedly higher than it was a decade ago. From May 31, 1927, to May 31, 1928, the cost per capita of the Exx County Hospital was $6.25 per patient day. This figure includes the cost of both ward and private services. The total operating expense was $172,668.10. The major expenditures for any institution consist of those for food, personnel, medical and surgical supplies, heat, light and power.

Of this outlay of funds, $39,292.58, about 22 per cent of the total, was spent for food. While little can be learned from the mere comparison of figures relative to the quality of food products secured for a given sum of money, yet in comparable institutions the percentage expended for food varies from 22 to 25.

It seems that the cost per patient in this hospital reaches the upper levels of expenditure as seen in other hospitals, a fact that may be explained by the requirements of the local clientele or by the location of the hospital.

Careful inquiry was made as to the methods of buying. Most of the methods employed cannot be criticized. The purchase of eggs, for example, in large quantities for future delivery at a guaranteed price is usually a good practice if storage

methods make possible proper preservation. The purchase of twenty-four hour eggs in any quantity does not seem to be necessary.

The purchase of 500 bushels of potatoes at one time at $0.75 a bushel no doubt saves this hospital money. The buying of meat twice a week from a city concern, with which the hospital has no contract, may be justified, but it is possible that a better price could be obtained if monthly or trimonthly contracts were sought. It is possible that the purchase of half or whole carcasses of meat, under a definite specification instead of the purchase of hind quarters only, might be justified economically.

What Is Paid for Milk

Eighteen cents a quart for milk, if the milk is the equivalent of certified milk, as the report stated, is not too high. Tuberculin tested milk at $0.11 and raw milk at $0.10 in the quantities purchased probably could not be improved upon. The use of eighty quarts of milk a day for feeding seventy-five patients and 115 employees does not appear to me to be excessive.

The outlay required for the purchase of salt and smoked meats, such as hams, bacon and sausage, is considerable. Since such food materials can be kept indefinitely, inquiry should be made as to the possibility of creating competition for this business, and perhaps of awarding contracts covering a longer period of time. It is easier to purchase without competition, but prices are usually lowered thereby.

Fresh vegetables are difficult to obtain, and are not cheap. Contract buying from city commission merchants is usually advantageous, although when the hospital is twenty-five or thirty miles from city markets, prompt replacement of faulty goods is often difficult. The policy of buying from local markets is usually not money saving, although the transportation of supplies from the city adds somewhat to the basic cost.

The wisdom of purchasing poultry from the same source on a week to week basis should be questioned. It seems that definite specifications might be drawn up that would cover many of the articles of food used and that would serve as a basis for the acceptance or rejection of supplies delivered.

Citrus fruits are difficult to buy on contract, but it is recommended that a bid be secured from several dealers and that the contract be awarded to the lowest responsible bidder. To purchase "two hundred and ten" oranges for orange juice and "one hundred and eighty" oranges for trays is a good policy.

It is recommended, therefore, that when feasible, specifications be drawn covering each article of food to be purchased and that these specifications be used as a basis upon which bids for standard articles are solicited.

As to the methods by which the director may control, on a daily or weekly basis, the expenditure of money for food, it is recommended that a definite food budget be drawn up, allowing the dietitian a specified amount to spend per meal, per day, per patient or per person; that raw food materials be issued by the purchasing agent or storekeeper to the dietitian, and that the director, purchasing agent and dietitian hold a daily or weekly conference relative to the type of food purchased, whether it be in or out of season, and as to the amount of money available for the purchase of routine or unusual articles. To know how much money is in her purse for the purchase of food will be heartening to the dietitian, because it will remove much of the uncertainty relative to the articles that she may serve and will enable the director and his purchasing agent to discover when overdrafts are being made on the budget before expenditures have been made and a deficit created.

This recommendation is of the utmost importance in controlling food costs and is the only policy I know of that will enable a day by day or week by week check on food expenditures. Certain difficulties may arise, but these can be overcome or modified. I inspected the storeroom of the Exx County Hospital and found a supply of standard materials that I considered sufficient to supply the hospital for from three to six months.

Ways to Economize

The purchase of gauze and adhesive tape on a one year contract is recommended, provided proper competition can be secured. It is the custom to buy 30,000 yards against an estimated usage of 90,000 yards per annum.

It is probably economical for a hospital the size of the Exx County Hospital to purchase bandages in the roll and not to attempt to make them.

Three hundred pounds of ether costing $0.78 a pound is used annually. If the staff requires a certain brand of ether, it probably should be supplied, though some institutions are able to purchase satisfactory ether at from half to one-third less cost.

This hospital has secured an exceptionally fine price for catgut, $23.75 per gross. This is the lowest possible amount at which a good standard article can be obtained. If the rubber gloves in use in the hospital are satisfactory, then the

price being paid, $2.25 per dozen, is a low figure.

A good gas is being used for anesthetic purposes and the price of this article is more or less standard. However, if competition could be secured from several reliable companies it is possible that a slightly lower price per gallon could be secured.

The druggist and purchasing agent are to be commended for their attempt to lower the expense in the purchase of drugs. In the last fiscal year, $3,843 was spent for this item. That the manufacture of an antiseptic solution that is a satisfactory substitute for proprietary preparations on the market has been carried out is commendatory, since these articles are but a slight refinement of those that can be compounded by a skilled druggist.

Standard Drugs Only Should Be Stocked

A great difficulty in the purchase of drugs lies in the lack of cooperation often displayed by the members of visiting staffs. The policy of prescribing for ward patients semiproprietary or new and nonofficial remedies that are expensive should be discouraged. The United States Pharmacopeia lists a wealth of therapeutic agents that may be successfully employed in the treatment of many diseases.

It is recommended that the compounding of individual prescriptions for patients be discouraged and that these remedies be secured from the stock in the individual ward or floor medicine closets. I do not believe that these closets should contain other than the standard drugs usually employed in the treatment of disease. Serums or vaccines should be issued from the drug store upon the receipt of a properly signed prescription. Individual containers of drugs for specified patients in private rooms should not be obtained from the drug store. These medicines must be withdrawn from the floor stock bottle just as would be done for a ward patient. The use of any proprietary or patent medicine by staff physicians in the treatment of ward patients should be discouraged if not forbidden.

It is recommended that definite action be taken on this matter by which the druggist will be authorized to refuse to purchase such remedies. A hospital formulary containing a list of drugs available, with the possible insertion of favorite standard formulas, is often time and money saving. The withdrawal of unusual or expensive drugs from the drug store should be permitted only upon the prescription of the physician in charge or his agent, and a cost slip should be at once forwarded to the business office.

An inventory of drugs in stock should be taken at least annually, and drug closets should be frequently inspected by a representative of the drug store and the school for nurses, with a discarding of deteriorated drugs and an attempt at standardizing containers and strengths of drugs stored in ward or floor medicine closets.

It is also recommended that the compounding of drugs for individual patients be discouraged.

The purchase of linens for the Exx County Hospital is apparently being conducted under a proper policy, and no constructive comment can be made.

As to the cost for furnishing heat, light and power, I have no definite opinion concerning this matter as it affects the Exx County Hospital. I visited the engine room and inquired as to whether it was not possible to burn less oil during night than during the day. The director of the hospital said that he feared an emergency operation might necessitate maximum steam pressure, and that the hospital would not be able to meet such a sudden need if less oil were burned at night. I believe, however, that an attempt should be made to burn less oil at night, and I do not feel that the time needed to secure satisfactory steam pressure in an oil burner would be so great as seriously to delay the sterilization of goods necessary for an operation. If such an exigency is feared, it seems that sufficient preparation could be made before night so that an operation could go forward even if steam pressure sufficient for sterilization was not immediately at hand.

Several special departments were studied individually. A visit was made to the laboratory and the following facts were ascertained.

A Day's Work in the Laboratory

The personnel of this division consists of a part-time director, who in 1928 received $3,661.63 for his services, which averaged from four to five hours a day; a technician who received $1,500 and his meals; a second technician, at a salary of $1,080 plus meals; an intern, and a diener who gave one hour a day in the laboratory. The expense for drugs, chemicals and supplies was said to be $720 a year. The total outlay for the laboratory, therefore, represented $6,900 per annum.

On the day that I visited the laboratory, the following work was performed: five urinalyses, four blood counts, two blood urea tests, one phenolsulphonphthalein test, one Widal test, sixteen Wassermann tests, made over a period of a week, three vaccines in the course of preparation, two gross examinations of tissue, one blood culture, and one miscellaneous culture, making thirty-six examinations in all. In the month of January, 873 examinations were made.

If this month can be taken as an average, the work of the laboratory consists of approximately ten thousand examinations in a year. From May 31, 1927, to May 31, 1928, 7,417 examinations were made. No research work was in progress in the laboratory and I could not learn whether any was contemplated. For the year 1928, laboratory work netted the hospital $212.73.

It is my belief that the laboratory of the Exx County Hospital is not as useful as it should be, and that if the amount of work done in the month of January can be taken as any criterion for the amount done in a year, there is a disproportion between the number of examinations requested and the number of personnel available.

Buying Laboratory Supplies

All laboratory supplies should be purchased in quantities sufficient to secure a favorable price, by requisition of the laboratory director upon the purchasing agent. It is possible for research problems on a small scale to be continually carried on in a laboratory as well equipped and manned as that of the Exx County Hospital.

A careful inspection of the scale of charges in force covering laboratory work would lead one to believe that they are ample, and a revision upward would appear to be not desirable or justifiable.

From May 31, 1927, to May 31, 1928, 152 deaths occurred in the hospital, and thirteen postmortem examinations were made, an average of 8.5 per cent. In the previous year, there were 142 deaths and twenty-six postmortem examinations, an average of 18 per cent.

The business of securing a higher percentage of postmortem examinations is a joint responsibility of the staff and the hospital, and the inauguration of a concerted effort to increase this valuable contribution to medicine and to the education of interns and nurses would bring about a marked increase in postmortem percentage. The director of the laboratory may be a useful adjunct to such a campaign.

The x-ray department, which is conducted by a director who receives a salary of $3,000 plus one-half of the profits (he received a total of $4,600 in 1928) and by a technician whose salary is $100 a month, appears to be functioning satisfactorily.

The expense of this department is computed by adding to the salaries and the cost of supplies a 10 per cent depreciation on the investment. The department netted $1,110.97 in 1928, and the expense for plates, chemicals and other supplies was $2,568.62, no charge being made for heat, light or floor space.

The equipment of the x-ray department is ample, and it seems that no deep therapy facilities are required at present, since treatment of this sort can be more economically secured in near-by urban hospitals.

In the last fiscal year the electrocardiographic division examined 170 patients, 102 of which were in-patients and sixty-eight out-patients. The charge of $15 for an examination is ample, it would appear, since a number of city institutions charge but $10 for this service.

The technician spends half her time in the office of the institution. The department netted $56.54 in 1928 and $76.08 in 1927.

It appears that this department is doing good work, but that it needs more support from the staff. With 2,295 admissions to the hospital in the last year, it seems that more than one hundred electrocardiographic studies might have been made, thus contributing something to the patients' diagnoses and treatment.

The physiotherapy department of the Exx County Hospital is conducted jointly by the x-ray and electrocardiographic technicians. The diathermy machine should be under the supervision and use of a particular technician. At the present time, no one appears to be assigned to giving diathermy treatments. Quartz light treatments are supervised by the two technicians mentioned.

In many institutions the physiotherapy department is a source of income, and it appears that in this hospital such work might be developed to the financial and physical profit of both the institution and its patients.

Out-Patient Department Is Needed

The Exx County Hospital has no out-patient department. It is questionable whether a modern hospital can provide for its community the fullest measure of service without this outpost halfway between the hospital and the community.

There appears to be some staff opposition to the inauguration of an out-patient department. I feel that there is little justification for this attitude. Even though the hospital is a full mile from the center of the town and although no bus service is available and the taxi fare each way is $0.25, it should be possible to overcome this difficulty.

The out-patient department should be within the hospital. The clinics providing prenatal and postnatal care now being conducted in town, which receive free space, heat, light and instruments from the city while the hospital supplies the linen, do not seem to be contributing what they should to the in-service of the hospital. In this arrangement, there appears to be a divided

responsibility that does not promote efficiency, particularly to the hospital.

It is said that from six to eight patients visit these clinics weekly. The present arrangement whereby visiting nurses under the general direction of a committee of women are required to visit maternity patients in their homes, for which service the committee is paid a stipulated sum by a certain life insurance company, is of doubtful value. Whether as a result of this policy maternity patients are urged or advised to undergo confinement in their own homes is a matter that should be carefully investigated. The facts remain that an average of only three of the sixteen maternity ward beds are occupied; that in Exx County, infant mortality in children under one year of age is above ninety per hundred thousand and that this county is one of the eight in the state with the highest mortality rate.

How Department Could Be Developed

It is recommended that an out-patient department be created, beginning, perhaps, with prenatal and postnatal clinics or some other particularly needed clinic facility, and that it be gradually developed along conservative but efficient lines. The resident staff of the hospital could carry out the work of this venture until it attained such proportions that the visiting staff would be required to render aid.

It is also recommended that the committee supervising the work of the visiting nurses be requested to cooperate more fully with the hospital in maintaining a higher average of occupancy of the maternity department. The hospital should assure the committee that if maternity patients are unable to pay they will be treated free. It is obvious that better and more scientific treatment can be given maternity patients in the hospital than in the home and that the tendency of such a policy would be to lower the already distressingly high mortality rate.

The private facilities of the Exx County Hospital consist of nine rooms at $6 a day, six rooms at $7 a day, three rooms at $8 a day, one room at $10 a day, or nineteen rooms in all. The semi-private wards contain twenty beds: five at $5 a day; two wards with six beds at $4, and one three-bed ward. The wards consist of two eight-bed maternity wards at $4.00 and $3.50 a day, respectively; eighteen beds in the children's ward at $3 a day; sixteen beds in the men's wards at $3 a day; sixteen beds in the women's wards at $3 a day. There are six isolation rooms. This brings the total capacity of the hospital to 116 beds; in the last year 65 per cent were occupied.

It appears from information available that there are sufficient private rooms, though the occupancy of these rooms is much less than the desired 85 per cent. The disturbing fact concerning this occupancy study is the low percentage of the maternity ward beds used. In other words, other hospital departments are being asked to carry the expenses of an average of thirteen empty maternity beds every day in the year. This situation increases the cost per capita, lessens the service to the community of the hospital and lowers the total percentage of occupancy.

Reference has been made previously to the effect of the prenatal and postnatal clinics upon the percentage of maternity bed occupancy. It is recommended that these clinics be transferred from town to a location in or near the hospital and that the board controlling the visiting nurse activities be urgently importuned to cooperate with the hospital in increasing the use of the maternity ward beds. Greater publicity as to the facilities at the hospital, with more frequent meetings, at the hospital, of the women's auxiliary committees scattered throughout the county, greater use of county and local papers, with increased activity on the part of the staff and board officers in making public the aims and accomplishments of the hospital are but a few of the ways that have been found useful in increasing bed occupancy. The percentage of beds occupied in the hospital is at least 20 per cent less than the ideal and 10 per cent less than the average.

I am informed that in 1928, $3,000 in bills receivable remained unpaid. This is a rather high percentage of loss, and reflects an inability to judge the probabilities of individual patients to meet their bills, a peculiar dishonesty on the part of those involved or lack of persistence in follow-up. If a more accurate financial diagnosis could have been made, some of this money, representing as it does the free care of patients, might have been received from the state.

Suggestions for Credit Officer

It is to be recommended that the credit officer more carefully scrutinize the economic and moral status of those whom she interviews, and that some facilities be provided whereby she may spend one or several days checking these accounts by visits to the homes.

The organization and personnel of the visiting staff appear to be satisfactory and sufficient. It is to be hoped, however, that the personnel may more actively participate in elevating the scientific aspect of the hospital by securing more post-mortem examinations and by greater use of the laboratory, electrocardiographic, physical therapy and x-ray facilities.

The nursing department consists of forty-three pupil nurses and seven graduate nurses. This does not include the anesthetist but does include the superintendent and the instructress of the school.

It may be mentioned here that the advisability of the hospital anesthetist being under the supervision of the superintendent of nurses is questionable, unless some other arrangement cannot be made. The work of the anesthetist has many points that differentiate it from that of the school for nurses, particularly in regard to staff relationships.

The curriculum and methods of instruction in the school for nurses are commendable. In studying the work of the school for nurses, which appears to be large enough for the number of patients the hospital treats, one is led to commend the type of supervisory work that is being done by the graduate staff. It might be suggested, however, that in order to lessen the danger of infection and contagion visitors to the maternity department should be gowned and that every effort should be made to prevent close contacts of these persons with mothers and babies. Patients in the maternity department, who develop fever, should be immediately isolated. The isolation rooms do not appear to make possible a strict quarantine, since no bath or dietary facilities for their sole use are available.

The handling of patients with typhoid fever, it appears, would be difficult because a bathroom common to a ward would have to be used for disposing of excreta and sterilizing infected material. Careful supervision of the sterilization of linen used by these infectious patients and sent to the hospital laundry should be carried out, because of the danger of transmitting infection to patients.

It is recommended that an effort be made to examine every child admitted to the hospital before it reaches the children's ward. This should be done by a house officer.

Providing for Contagious Diseases

In order to lower the incidence of cross infection in the hospital, children with contagious diseases who are admitted should be kept in a separate ward as long as possible and proper aseptic technique should be carried out in caring for them.

It may be remarked here that the method of admission to the hospital might be somewhat altered. If a patient is to be admitted from a physician's office or from a private home, the physician should first ascertain whether there is a bed available in the hospital. All ward patients should be seen by an intern before being assigned to a hospital bed.

It is recommended that the policy of sending a patient who on diagnosis is found to have a contagious disease, such as measles or scarlet fever, to his home be discontinued and that isolation facilities at the hospital be provided for such patients.

The following sums were spent in conducting the work of the Exx County Hospital in two fiscal years:

	1927	*1928*
Total expenditures	$175,644.27	$176,637.18
Patient days	26,662.00	27,232.00
Income from patients	90,943.16	92,433.15
Cost per capita	6.46	6.20

In addition to the specific financial recommendations made earlier in this report, I believe it might be possible to secure greater state aid than is now received ($16,500), since the hospital earns over twice as much in free work as it receives pay for. The community chest should contribute more than $6,000, since almost three times as much work is done for the citizens of the city as is paid for, though some of this is found in the state bill for which the state pays but fifty cents on the dollar. The women's auxiliary committees throughout the county might be urged to commit themselves to definite contributions. About 50 per cent of them are doing this now.

Twenty-Four Nations Are Represented in This Nursing Group

From a point of view of nationality, the nurses of the American Hospital of Paris present a unique group. Twenty-four countries are represented among the alumnae and student nurses there.

A school of such cosmopolitan character should have international recognition. Therefore it is gratifying that the national nursing organizations in the countries represented have recognized the merit of this school and have made it possible for the graduates to obtain membership in their national councils.

On June 29, 1929, the Ministre de l'Hygiène of France gave permission for the graduates of this school to enter the examinations for the "Diplôme d'Etat." In order to fulfill all requirements, he has arranged a four months' postgraduate course in a French Hospital.

The National Nursing Council of Denmark, on September 13, 1929, granted a similar courtesy to the Danish graduates. On December 11, 1929, the Norwegian Nursing Council extended the same privilege to the graduates coming from Norway.

Many of the nurses have already availed themselves of the opportunities for postgraduate work and state registration in America. And now, through the interest of the nursing organizations of France, Denmark and Norway, the graduates will have a still broader field for service.

A spacious lawn dotted with trees surrounds the main entrance of the Montefiore Country Sanatorium.

An Unusual Example of Modern Sanatorium Construction

By ARNOLD SHAMASKIN, M.D., Medical Superintendent, Montefiore Hospital Country Sanatorium, Bedford Hills, N. Y., ROBERT D. KOHN and CHARLES BUTLER, Architects, and A. M. FELDMAN, Consulting Engineer, New York City

THE Montefiore Hospital Country Sanatorium, Bedford Hills, N. Y., was established in 1897 as a country branch of the Montefiore Hospital for Chronic Diseases, New York City. It is supported in the largest part by the contributing public in New York City. Admission to this institution is consequently limited to residents of Greater New York.

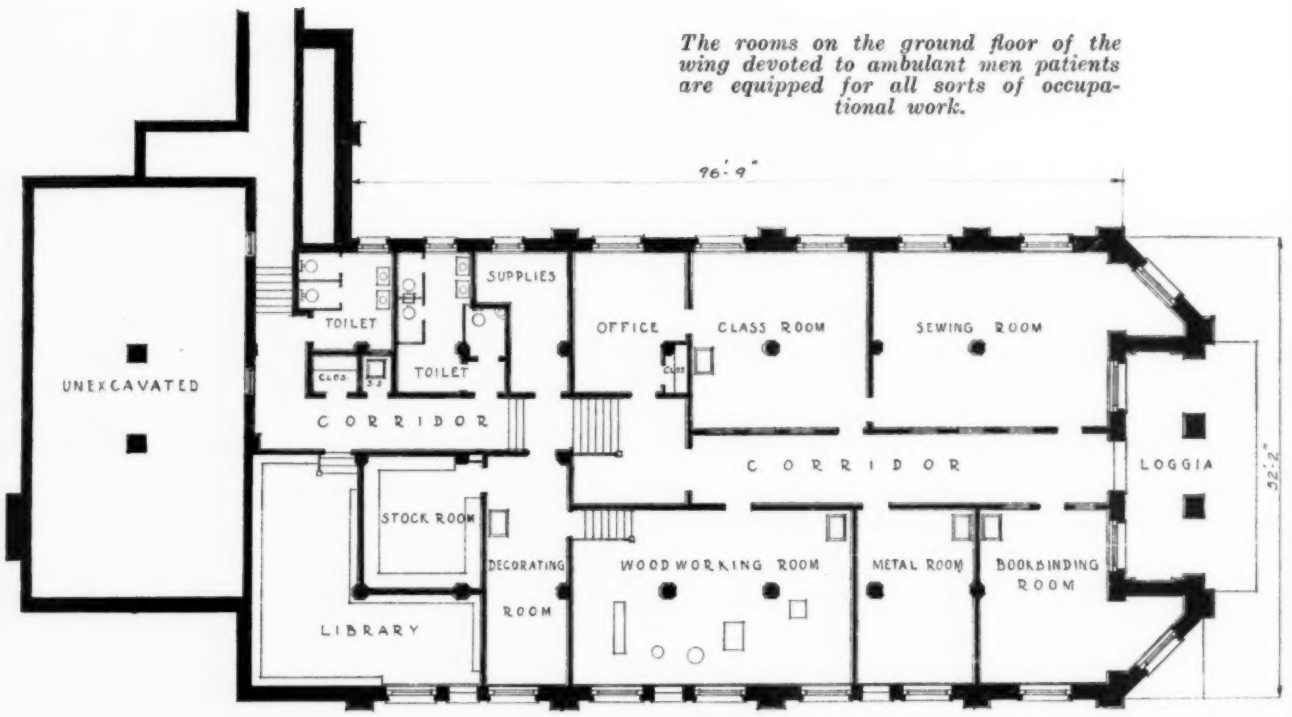
Realizing that many of the tuberculous patients applying for admission to the Montefiore Hospital and a considerable percentage of the tuberculous patients already under treatment at that institution could make better progress in a country environment, the trustees of the Montefiore Hospital decided to establish a sanatorium in the vicinity of New York City. With this purpose in view, a site of about 240 acres was purchased in the northern part of Westchester County, in the township of Bedford Hills.

Thirty-two years ago when the Montefiore Sanatorium was first organized, the conception of pulmonary tuberculosis and its treatment was considerably different from what it is to-day. It was believed then that only incipient cases of pulmonary tuberculosis had any chance for recovery and that only by outdoor treatment in the country could recovery be attained. For this reason sanatoriums were built in isolated places, far from cities, and admission to them was limited to early cases. The Montefiore Sanatorium was no exception to this rule, particularly in view of the fact that the mother institution in New York City, with its 150 beds in a tuberculosis division, could take care of the more advanced and bedridden patients. We must remember, though, that a great many cases that were considered incipient three decades ago would now be found far advanced.

Sanatoriums built when this institution was born consisted mostly of frame structures, frequently of the lean-to type, or at best big open wards with large windows for an abundance of air. They made little provision for privacy or physical comfort and had few facilities for active treatment as we understand it to-day. To be exposed to the elements irrespective of the kind of weather for the benefit one could derive from fresh air was considered the quintessence of good treatment for pulmonary tuberculosis. Physical exercises were deemed a valuable adjunct to the treatment of pulmonary tuberculosis while rest was considered of lesser importance.

During the year 1897 a building, known then as the male pavilion, was erected on the southwest corner of the sanatorium grounds. In the Fall of the same year, when this institution began its existence as a sanatorium for the treatment of incipient pulmonary tuberculosis, it had accommodations for twenty-four male patients and no accommodations for female patients. This

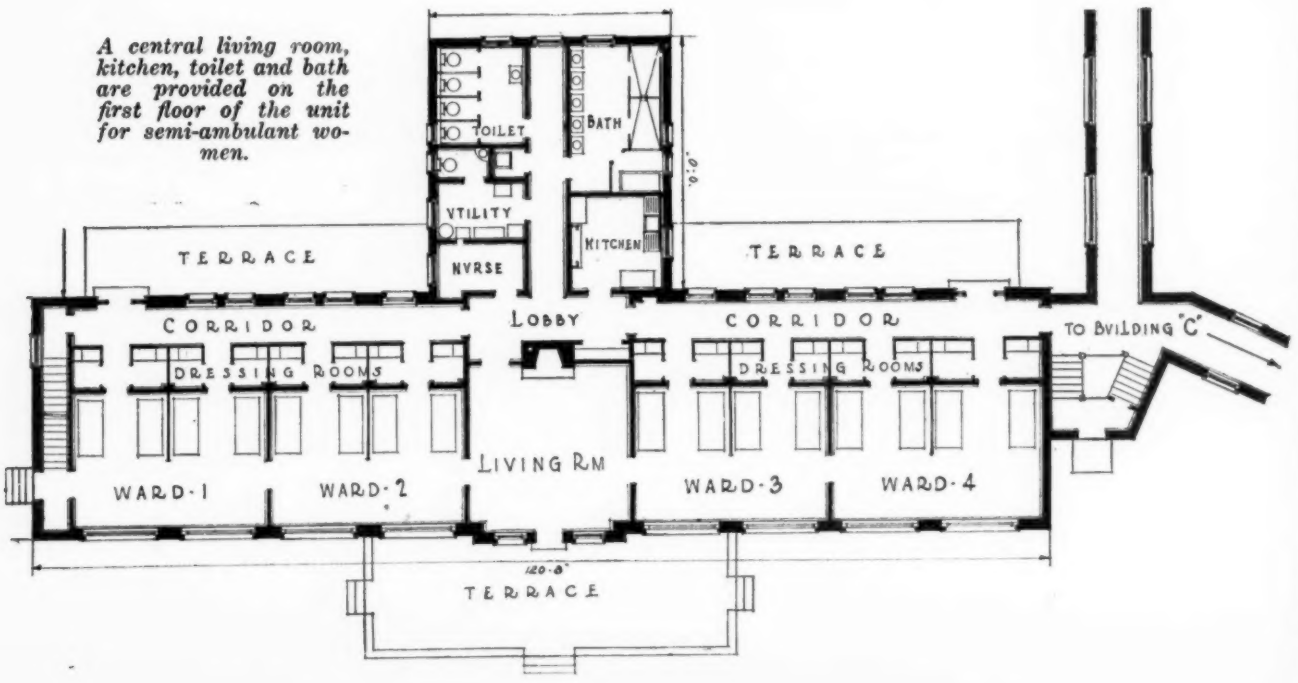
The rooms on the ground floor of the wing devoted to ambulant men patients are equipped for all sorts of occupational work.



male pavilion consisted of one large ward with a main floor and a gallery. It is interesting to note that this original building, having served successively as main ward, chapel and storeroom, is still in existence, while the large group of buildings erected subsequently has disappeared. Almost immediately upon the opening of this institution with the male pavilion, which in the words of the late Lyman G. Bloomingdale, first chairman of the sanatorium committee, "was more in the nature of an experiment," the Country Sanatorium building fund was started. By a resolution of the board of trustees in 1900, it was decided to erect a group of sanatorium buildings, which would accommodate 150 patients of both sexes. This group of buildings was completed and dedicated in 1901.

The group consisted of four separate two-story wings, two on either side of the administration building and connected with it by a ten-foot corridor. Two of the wings were designed for male and two for female patients. This group of buildings with slight modifications and internal changes from time to time constituted the Monte-

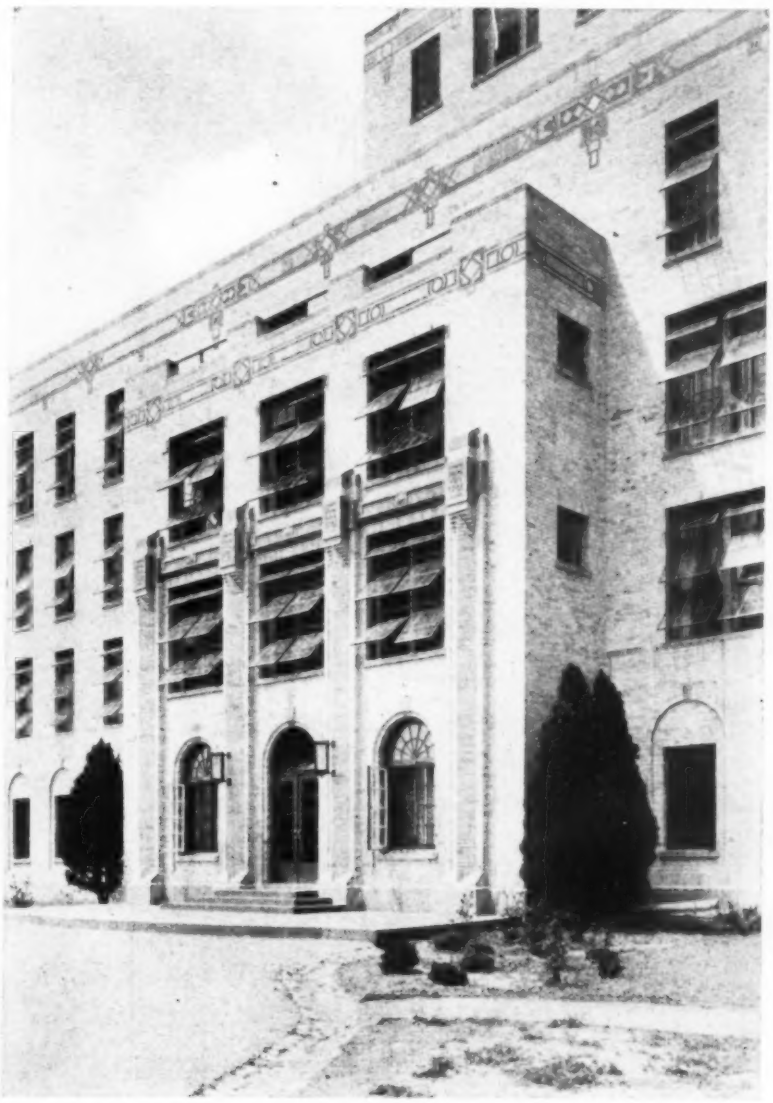
A central living room, kitchen, toilet and bath are provided on the first floor of the unit for semi-ambulant women.



fiore Country Sanatorium up to the year 1928.

With the advance in our knowledge of the treatment of tuberculosis, the great value of rest, comfort, mental relaxation, pleasant and cheerful surroundings inside and outside of the buildings, as well as of active treatment for pulmonary tuberculosis and its complications, became apparent. With the development of these new ideas the old group of buildings began to show their inadequacy.

The modern sanatorium is no longer a boarding house where tuberculous patients are sheltered. It is instead an institution for the active treatment of a disease both preventable and curable, where the problems of tuberculosis are studied scientifically at the bedside and in the laboratory. Medical research and medical teaching are also considered essential features of the modern tuberculosis sanatorium, and space and equipment are necessary for these purposes. The tuberculosis sanatorium must not only take care of the sick of our own generation but it must be a center from which advance knowledge about the treatment of tuberculosis will radiate.



This view of the main entrance shows in detail the constructive material and the excellent type of steel sash windows used.

Having these objects in view, the trustees of the Montefiore Hospital embarked on a program of construction in 1925, which marks the beginning of the third era in the history of the Montefiore Country Sanatorium. In recognizing the value of pleasant and cheerful surroundings for the treatment of pulmonary tuberculosis, emphasis was laid on providing homelike rest rooms, wards, solariums and open terraces.

An exceedingly difficult construction problem had to be overcome in that the new buildings had to be erected between and around the group of old buildings, at the same time permitting the regular work of the sanatorium to be continued without any reduction in bed capacity. This problem was overcome in a manner that caused but little hardship to the patients or to the administration. Parts of the old buildings were demolished as some of the new buildings were completed. Thus gradually all the patients and personnel were transferred to the new buildings.

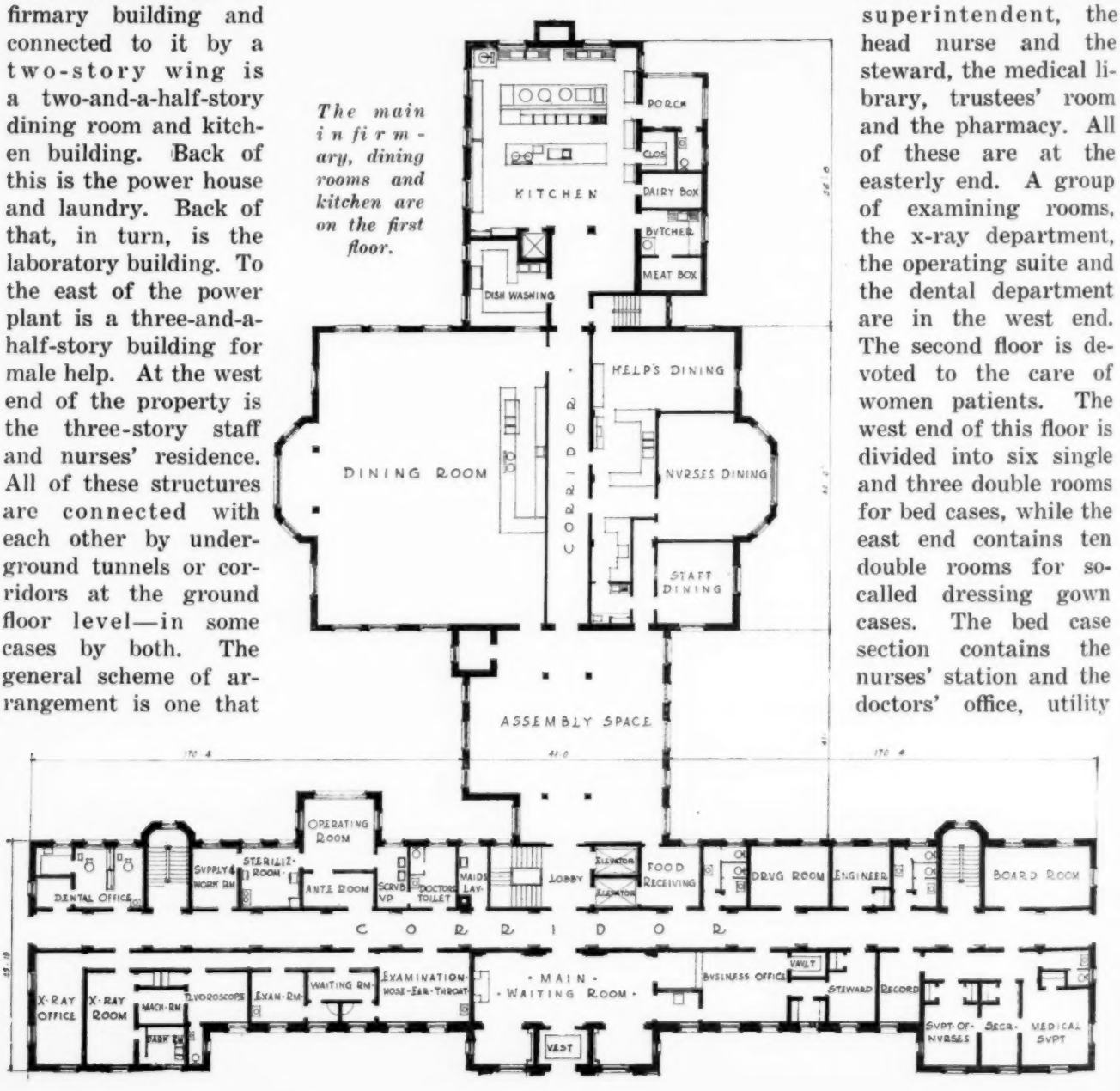
The sanatorium now consists of a group of fire-resistive buildings housing approximately 220 patients. Every effort has been made to embody in the new plant the most advanced ideas in arrangement of hospital buildings for this purpose. In a study of the plans for the new buildings the hospital committee called to its aid the advisory staff of the National Tuberculosis Association. The assistance thus given to the committee, principally through Thomas B. Kidner, was of great value as was also the personal service rendered by Dr. David R. Lyman, director, Connecticut State Sanatorium, Wallingford. The scheme of arrangement adopted was that of a central infirmary building where the patients are housed upon their arrival and from which they are "promoted" first to the semi-ambulant and then to the ambulant pavilions.

The power house and laundry building was erected in 1923 north of the location of the old hospital. There were underground tunnel connections to the old buildings so arranged as to

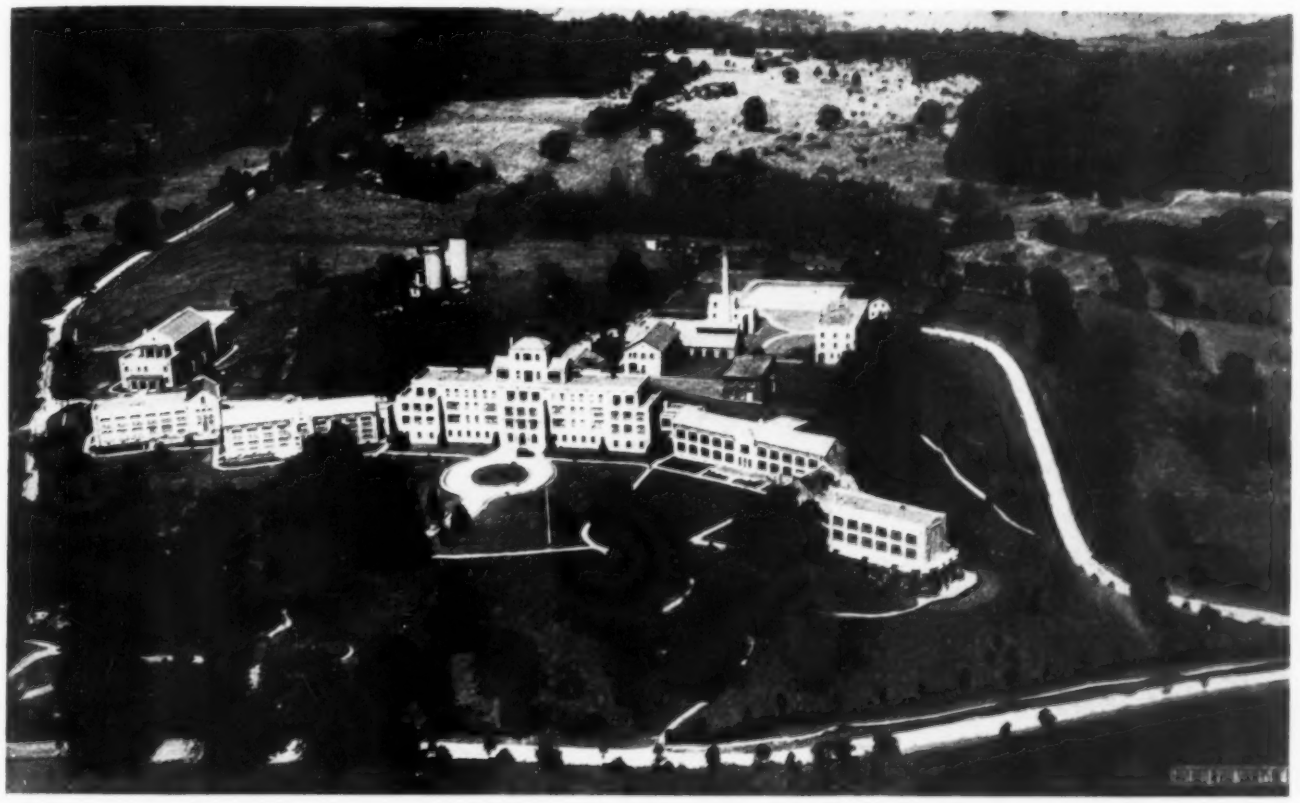
be later connected into the new wings. When this part of the work was completed, it was possible to tear down some of the old structures, thus affording space for the first three ward buildings and the kitchen and dining room building. The main part of the construction work was started in April, 1926. It has therefore required only a little more than three years for the complete replacement of the old plant by the new, even though there had to be three separate steps in this process. Each step consisted of shifting patients into new buildings, tearing down some of the old group and building a new structure.

The general plan provides for a central infirmary building, four stories high, flanked on either side by two-story ward buildings for semi-ambulant and ambulant patients respectively. To the north of the infirmary building and connected to it by a two-story wing is a two-and-a-half-story dining room and kitchen building. Back of this is the power house and laundry. Back of that, in turn, is the laboratory building. To the east of the power plant is a three-and-a-half-story building for male help. At the west end of the property is the three-story staff and nurses' residence. All of these structures are connected with each other by underground tunnels or corridors at the ground floor level—in some cases by both. The general scheme of arrangement is one that faces all of the hospital buildings toward the south, all wards and all single rooms being on the southerly side. The total width of the hospital property at this particular place is rather restricted by the nature of the hillside, which declines rapidly towards the east. In order to keep all the buildings at the same level so that the patients might reach the dining room without going up or down, it was necessary to build a stone terrace of considerable height under the easternmost building. The space thus gained has been utilized for the occupational therapy department. Patients may pass through the infirmary and utilize its elevators.

The central infirmary and administration building includes on the first floor a reception foyer, the business offices of the institution, the offices of the medical superintendent, the head nurse and the steward, the medical library, trustees' room and the pharmacy. All of these are at the easterly end. A group of examining rooms, the x-ray department, the operating suite and the dental department are in the west end. The second floor is devoted to the care of women patients. The west end of this floor is divided into six single and three double rooms for bed cases, while the east end contains ten double rooms for so-called dressing gown cases. The bed case section contains the nurses' station and the doctors' office, utility



The main infirmary, dining rooms and kitchen are on the first floor.



This airplane view shows the advantageous arrangement and location of the sanatorium buildings.

room, bath and toilet, while the east half includes the serving pantry, dining room, subutility, toilet and bathrooms. Porches have been planned in connection with seven of the two-bed rooms to which the beds may be rolled. To prevent the darkening of the bedrooms noticeable in many tuberculosis sanatoriums the partitions separating the porches from the wards are entirely of metal and glass. In addition, porches are provided at each end.

The fourth floor is planned for the care of male bed cases, with fourteen single and five double rooms. The third floor for dressing-gown cases contains six single and thirteen double rooms. Like the second floor, the third contains a dining room. None is provided on the floor devoted entirely to bed cases. The roof of this building, accessible by stairs and elevators, is arranged as a tiled sun terrace for the use of patients, with two enclosed solariums and with the necessary toilet and drinking water facilities.

The total capacity of the infirmary is eighty-eight, divided in the proportion of fifty-six men and thirty-two women.

The connecting wing between the infirmary and the dining room building contains on the ground floor the patients' barber shop and canteen, toilets and wash rooms, while the first floor is used as an assembling room for the patients before meals. It is fitted up as a music room.

The dining room and kitchen building includes on the ground floor a large auditorium which is equipped also for religious services on special occasions. This floor also contains the receiving department and ample supply rooms. The dining room floor is planned with a large hall capable of seating all the ambulant and semi-ambulant patients. There are also private dining rooms for the nurses and for the medical staff, as well as a dining room for the workers. The dining rooms have yellow flint tile floors and the patients' dining room has a low yellow tile wainscot with brightly colored tile border, the top member part of which is carried around the window openings. A portion of the upper story contains living quarters for the chef and his assistants, while the remainder is separated from the rest and arranged in a suite of rooms for isolation purposes which is reached only over the roof of the two-story connecting wing.

Adjacent to the central building on the west is a two-story pavilion for thirty-two semi-ambulant women patients. Beyond that is a two-story pavilion for twenty-four ambulant women patients. To the east of the central building is a two-story structure accommodating forty semi-ambulant men, and beyond that is a three-story building with accommodations for thirty-two ambulant men patients. The lowest floor is arranged for shops for occupational therapy. These

include a woodworking shop, a metal working shop, rooms for textile work, bookbinding and decorating, with a library and a classroom. This occupational therapy section is completely above ground owing to the slope of the ground.

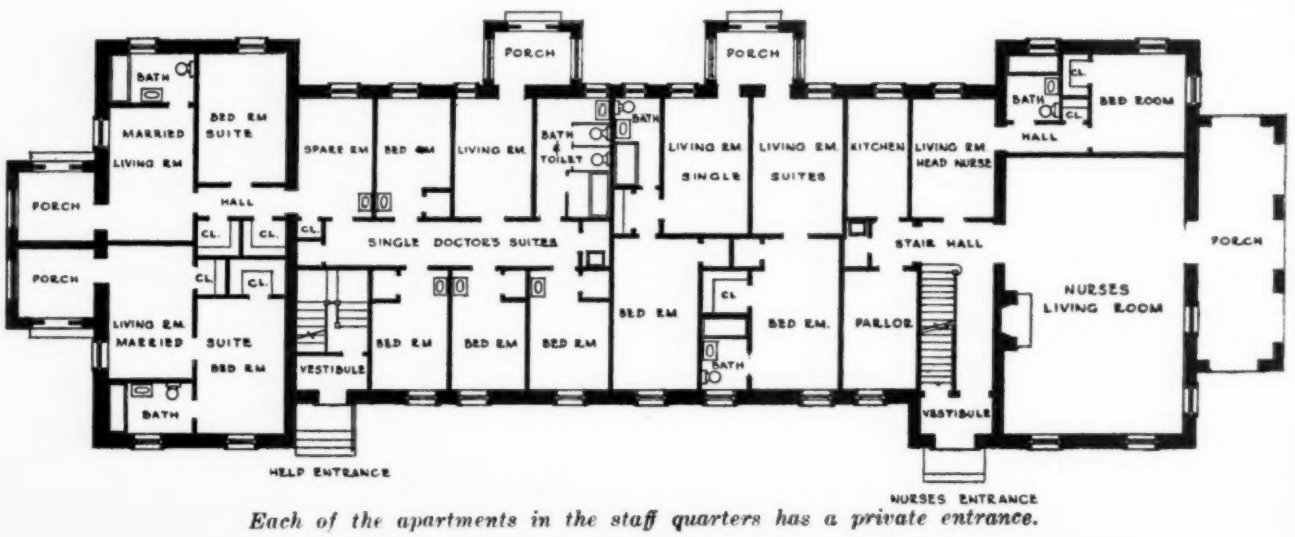
The semi-ambulant patients are housed in four-bed wards each divided by a low partition into two cubicles. The fronts of these wards are of glass, and ample space is provided for steamer chairs between the beds and the windows. These wards are only heated to a moderate temperature in winter. Back of these is a broad well containing individual dressing rooms with cupboards and wardrobes where the patients may keep their effects under lock and key. These pavilions contain a central sitting room on each floor with wood burning fireplaces. A wing extending to the north contains a nurses' office, a small utility room and a kitchen to provide the means of caring for those patients who might temporarily return to the classification of bed cases and thus be unable to go to the dining room for meals. This wing also contains the toilet rooms and baths and lavatories.

In the pavilion facilities are provided in the proportion of five waste basins, two showers and one tub bath and four toilets for sixteen patients. This liberal allowance prevails in all the buildings of the institution. The plan of the pavilions for ambulant cases is similar, except for the fact that each floor is treated as a ward, being divided into two-bed cubicles by low metal partitions as in the case of the semi-ambulant wards. The utility rooms and diet kitchens are, of course, omitted in the ambulant pavilions. Terraces on the south and north sides of both ambulant and semi-ambulant pavilions provide space for outdoor rest.

The staff building contains on the first floor five two-room apartments for married administration personnel, a section for five interns, each apartment having its own private entrance. In addition, this floor contains a general sitting room for nurses, the nurses' kitchenette and a small reception room. The nurses' bedrooms occupy the second and third floors, each nurse having a single room with running water. In the basement is a small hand laundry for the use of the nurses. The employees' building is divided into single rooms with two double rooms for married couples. It contains also a general sitting room and a billiard room. The laboratory building, arranged for research work, contains on the ground floor the morgue and the media room, the remainder of the floor being occupied by the garage. On the second floor are the bacteriological, pathological and chemical laboratories. On the roof is the animal house and store rooms.

The material used on the outside of the buildings is a light buff brick decorated with panels and band courses of brightly colored glazed terra cotta in blue, green, white and gold. The windows of patients' rooms and wards have the projected type of steel sash. This permits of an opening equal to about 95 per cent of the masonry opening. The upper portion of these windows is glazed with an ultraviolet ray transmitting glass. The upper portion of the ward windows is arranged as a transom, opening in at the top with group control while the lower portions are hinged at the top and open out, so that they may be left open except during driving rains. The difficult problem of screening this type of window has been met by the use of all metal screens that slide in horizontal guides. The flooring of the enclosed porches and of the wards is of terrazzo. Linoleum fields with coved terrazzo or cement bases and borders have been used in corridors.

Cross ventilation is provided throughout by transoms and in the case of the ward buildings by pivoted sash in the north walls of corridors.



Each of the apartments in the staff quarters has a private entrance.

Yellow tile floor and wainscoting give the patients' dining room a sunny, cheerful atmosphere.

Artificial ventilation is used only for utility rooms, toilets and diet kitchens in the infirmary building and in the auditorium. Light colors, mostly warm shades of buff, have been used throughout for the sake of cheerfulness, while the elevator cars and stair halls in the infirmary building are painted blue.

The plumbing fixtures are of the usual hospital type, the lavatories having combination supplies and no stoppers so that patients must wash under a running stream of water. After considerable study the general toilet room plan was adopted for the semi-ambulant and ambulant pavilions in preference to the group system of toilets and lavatories frequently used. The water for the institution is furnished by artesian wells, from which it is forced up to the two standpipes set on a hill that dominates the group of buildings.

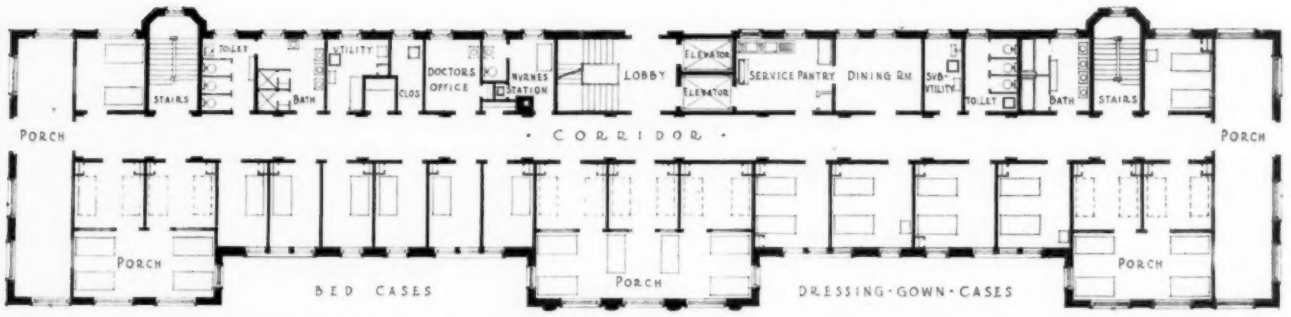
The kitchen is of the usual institutional type with free standing kettles and ranges. Supplies enter through the receiving room on the ground floor which contains also general stores, vegetable stores and a root cellar. From the receiving room they are transported by an electric elevator to the kitchen level where the butcher shop and meat box and the dairy refrigeration are placed.

The group of buildings is equipped with a hot water heating system which has proved easier to control and more economical than steam. Moreover, it furnishes an equable temperature throughout the heating season. On the supply and return heating mains, and also for outdoor readings, recording thermometers are provided in the power house. Through the use of these instruments and by means of a chart conveniently posted in the engine room, the engineer controls the water temperature in accordance with atmospheric conditions. In the pipe tunnels, two heating mains are carried for all the buildings and are branched off to each of them. The main supply branch in each building is carried up to the roof or furred ceiling of the top floor where all the pipe joints are welded to prevent possible leakages. The system of heating installed is known as the overhead down feed with single risers to radiators. The returns from radiators discharge into the same risers. The bottoms of all risers are gathered into a main return under the basement ceiling of each building. This system reduces the number of risers to a minimum and vents the air automatically at the top of the main risers in each building.

The radiation is designed so that in the rooms and wards of the main building the temperature is kept around 70 degrees. In the wards of the ambulant and the semi-ambulant buildings it is maintained around 50 degrees while in the corridors and dressing rooms it is around 70.

The location of the sanatorium made necessary the installation of its own central power plant for the supply of heat and electricity and of steam for the kitchen, diet kitchen and sterilizers. There are three 150-horse power return tubular boilers with hand operated stokers that make it possible to burn the cheapest grades of bituminous coal.

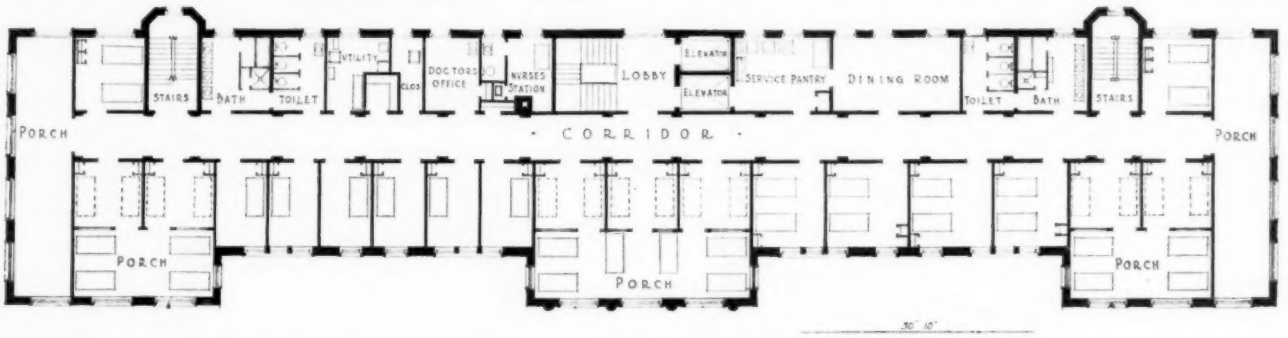
Three 50 kw. generators directly connected to



The second floor of the main infirmary is devoted to the care of women patients.

high speed engines are used for the supply of electric light and power. For a few hours only during the winter evenings, two units are in operation. Otherwise one of the 50 kw. is sufficient.

A fifteen-ton refrigerating machine supplies refrigeration for the cold storage rooms and refrigerators in the kitchens and laboratory buildings, besides providing the ice needed for the institution. Each of the diet kitchens is equipped with an electrically operated refrigerator, a plan found economical because of the considerable distance from the power house to these kitchens. The light fixtures are of the direct type throughout. Besides the ceiling lights in the corridors of all of the buildings, there are also night lights set in the walls behind diffused glass near the floors. These lights are switched on after the patients have retired.



Men's dressing gown cases are cared for on the third floor of the infirmary.

At each patient's bed is a nurse's call button. Push call buttons are also provided in the patients' toilet and lavatory rooms. At every bed an electric convenience outlet is installed and there is a duplex radio jack for earphone attachment. The sanatorium is equipped with two-channel centralized radio receivers. In this way may be had a choice of two programs on the air at any time. In each of the buildings there is a visual doctors' call system combined with single stroke signal gongs. In the assembly hall, a small stage is fully equipped with dimmers and foot and colored proscenium lights. It is always ready for any variety of entertainment.

Among the features incorporated in the new buildings and deserving special mention are the following: the liberal space for each bed; liberal bathing, washing and toilet facilities; single and double rooms for ninety patients in the infirmary building; facilities to convert seventy-two semi-ambulant beds into infirmary beds, making a total of 162 available beds for bedridden patients; cubicles for every two patients in the ambulant buildings; open terraces on the north and south sides of the ambulant and semi-ambulant buildings, and promenade roof with enclosed solariums on the infirmary building; commodious and cheerfully furnished living rooms for every ward; a well equipped auditorium, with stage for entertainments equipped with the latest type of machines to show sound pictures; a handsomely furnished music and reception room; radio equipment with a double outlet at every bed, in every living room and every dining room, so that the choice of two different programs may be offered to the patients at any time; a well equipped occupational therapy department; a greenhouse which supplies flowers to the wards throughout the winter and an extensive flower garden for the summer; refrigerated water at all drinking fountains; an individual room for every employee in the institution, an arrangement which has resulted in a very material improvement in the class of employees.

The chairman of the building committee was Samuel Sachs of New York, while the active direction of the entire work from the start in 1923 to completion has been in the hands of the vice-chairman, Joseph Obermeyer, New York City.

The Enthronement of Beauty in the Hospital

By S. S. GOLDWATER, M.D.
New York City

THIS is a census year, a year in which official enumerators will be busily occupied with the enumeration of hospitals according to the usual methods of classification. In familiar speech, hospitals are commonly classified as general or special, municipal or private, or, from the standpoint of efficiency as measured by certain methods of standardization, as Class A or Class B. Such characterizations have their uses, but of far greater significance is the classification of a hospital according to its ruling passion. To know a hospital really you must first discover the desire that dominates it.

But, you ask, is such a classification possible? The eagerness of a given hospital to excel in this or that phase of its work may be apparent, while its tranquil neighbor shows no sign of a restless urge. Can it be true, then, that every hospital has a ruling passion? Alas, no; for while the beginnings of every voluntary hospital, at least, may be traced to a strong feeling of need on the part of some individual or group, many hospitals have lost all traces of their original creative spirit. Before attempting to classify hospitals according to their ruling passions, then, we must first separate the quick from the dead. The task is not a difficult one, for at a single glance the trained observer who enters a hospital can determine whether it is merely dormant or whether it is reacting to an exigent need.

With hospitals that have lost the spirit of accomplishment we have no concern. Our interest is in those in which a throbbing life and a desire to succeed survive, and most of these at the present time are hospitals that are particularly responsive to the call of beauty, of justice, of truth —three ideals that to-day are manifestly struggling to replace in the hospital world the once dominant desire for efficiency. These three hospital types—the hospital that is preeminently scientific in its outlook, the hospital that rejoices most in its social service work and the hospital that thrills with rapture only when it is gorgeously adorned—are all worthy of study, but only one will be discussed here.

In some hospitals Beauty sits enthroned, inspiring an earnest, almost reverent worship. Deeply rooted in these hospitals is the idea that they must never become the drab and dingy places that once aroused in the poet, W. E. Henley, a disgust that he expressed in biting verse, recording impressions that must have brought the blush of shame to the cheek of every superintendent of his time. Walls that in Henley's day were dreary in their pallid monotony are now finished in colors that charm or soothe or excite, and sometimes even amuse. In many of the hospitals of our time science has been subjugated to what passes for modern art. The management of hospitals in Europe is sometimes divided between two directors —one for business matters, the other for professional affairs. It remained for the United States to introduce a new form of hospital management in which administrative power is intrusted jointly to a superintendent-in-ordinary and a director of interior decoration. But for each hospital that boasts a director of interior decoration there are hundreds that have capitulated to the disturbing, the sometimes distressingly vehement art of the interior decorator, in whose category of permissible color sky-blue is not the limit.

Decoration Often Overemphasized

There seems to be associated with the expressive use of vivid color in the hospital a sort of consciousness of guilt, as if a hospital that employs science and skill for the relief of suffering were, after all, a shameful thing, whose real character must be camouflaged by paint and distorted by design lest perchance patients discover that they are ill and their respect for an institution that exists for their benefit be forfeited. The soft-voiced hostess who conducts you through the modern hospital, pointing with conscious pride to a perfect "period" room here, a weird modernistic effect there, a flowered wall paper of rich design, a beauty parlor directed by a cosmetic expert of international fame, a guests' lunch room in the style of a popular confectioner's shop, remarks that scarcely anywhere is it possible to detect any sign of a hospital. "We try," she explains, "to make the patient forget that she is in

a hospital!" Exit temple of the healing art of Æsculapius, enter house of entertainment and of beauty! Good-bye, hospital, harbor of broken and suffering humanity; hello, restaurant, radio salon, beauty parlor, antique furniture emporium!

Where will this amusing game of hide and seek end? And is not the game just a trifle dangerous? What if the duty of the hospital is forgotten not only by the patient but by the hospital itself! What if the extravagant purchase of lavish furnishings necessitates the impoverishment of the laboratory! What if space that is needed by doctor and nurse is assigned to the manicure and the barber! When a committee in charge of hospital furnishings is permitted, in the equipment of a hospital of 150 beds, to exceed its appropriation by tens of thousands of dollars while the staff pleads in vain for indispensable scientific equipment, is it not time to inquire whether a hospital that rapturously abandons itself to the cult of beauty (interpreted in terms of current fashion) is a safe place for the sick?

To call attention to the excesses committed in the name of beauty or of art is not to argue that hospitals should disregard all considerations of appearance—far from it. Never again must our hospitals be permitted to relapse into the terrible state that made Henley with only mild exaggeration describe them as "half workhouse and half jail." The indispensable activities of the hospital should be carried on in appropriate surroundings, surroundings that are at once dignified, cleanly, simple, uncluttered, and mildly, soothingly, tastefully colorful. Every unnecessary harshness, whether of color, sound or form, should be eliminated. Replace gloom with cheerfulness, by all means. But let us not forget that the hospital has serious tasks to perform, and that while art may be employed to serve the vital purposes of the hospital, the essential interests of the sick are not promoted by an ostentatious display of a spurious art, more suitable in a night club or in a Mediterranean gambling casino than in an American hospital, and withal so costly that it can be achieved only at the expense of essential hospital equipment. The true hospital, as well as the misguided one, has its ruling passion, but the object of its passion is not beauty, but humanity.

Hospital to Have Later Bath Hour

No longer will the patients in Middlesex Hospital, London, be awakened at dawn to be bathed, the *Journal of the American Medical Association* says. Hospital authorities have decided that the patients' comfort must come first, even if the hospital routine may be somewhat disturbed. Since the patients' best recuperative sleep is usually secured between five and six o'clock, the time formerly reserved for bathing the patients, that hour has been abolished and a new ruling made that no patient shall be bathed before seven o'clock or disturbed for breakfast before that hour except for urgent medical reasons.

To bring about this reform, the duties of the day and night nursing staffs have been redistributed. Visits of medical officers will not begin before ten o'clock.

Publicity for the Hospital and What Administrators Think About It

What do hospital administrators consider the best ways of securing favorable publicity for the institutions they manage?

W. L. Simpson, superintendent, Watts Hospital, Durham, N. C., found it helpful to cultivate the good will of the newspapers. When he began his work with the hospital he went before the various civic clubs and gave them a résumé of what the hospital had to do and why, stressing the reason for certain rules of the hospital. The speech was printed in the newspapers. He also called the various editors into the hospital and told them that he was willing to give them anything of news value, provided it was first edited at the hospital. He also told them that if they published anything that would jeopardize the standing of the hospital or of the trustees, the hospital would take the indicated action.

Robert Jolly, superintendent, Baptist Hospital, Houston, Texas, did pactically the same thing. The reporters go to the hospital every day. The hospital authorities do not have to look over the stories, because the papers know what to print. When the Baptist Hospital buys any new equipment, it places it where it may be seen by everybody for a week or so. Mr. Jolly considers that such a move is good publicity for the hospital.

Dr. R. Plummer, director, Graduate Hospital, University of Pennsylvania, has found it advisable to allow publicity about patients to be given out by the director or superintendent of the hospital or by the chief resident. Accident cases are put in the ward book, to which reporters have access at any time. Any publicity that does not infringe on the rights of the patients is ethical, Doctor Plummer thinks. There should be a relationship between the administration of the hospital and the press to the end that ethical news only may be given out.

These opinions on hospital publicity were expressed at the round table conference on hospital administration that was held as a part of the program of the American Hospital Association meeting in Atlantic City. The entire conference is reported in full in the *Transactions of the American Hospital Association.*

Other administrators taking part in the discussion on publicity were J. O. Sexson, business manager, Good Samaritan Hospital, Phoenix, Ariz., W. W. Rawson, superintendent, Thos. D. Dee Memorial Hospital, Ogden, Utah, Dr. R. H. Foster, superintendent, Mississippi Charity Hospital, Laurel, Miss., Betty Eicke, R.N., superintendent, Norwood Hospital, Norwood, Mass., J. H. Trayner, superintendent, Idaho Falls Latter Day Saints Hospital, Idaho Falls, Idaho, Miss M. J. Avard, superintendent, Addison Gilbert Hospital, Gloucester, Mass., Miss Svea Landh, superintendent, John C. Proctor Hospital, Peoria, Ill., and Dr. W. P. Morrill, superintendent, Maine General Hospital, Portland, Me.

New Maternity Unit Completes Modern Hospital Plant

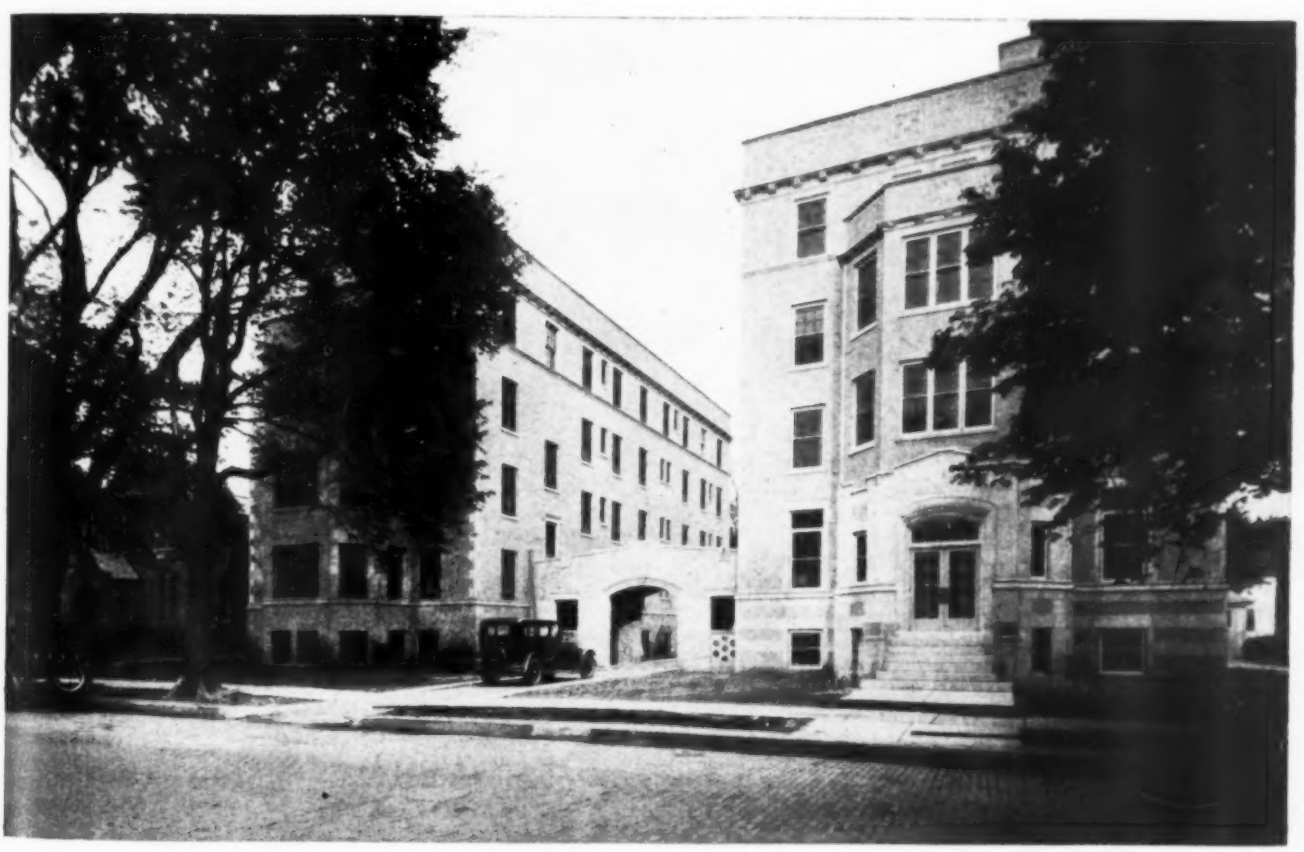
By JULIA PAVEK
Superintendent, St. Luke's Hospital, Racine, Wis., and
FRANK J. HOFFMAN
Architect, Racine, Wis.

THE Alice Horlick Maternity Unit of St. Luke's Hospital, Racine, Wis., is now in use. This building, which provides forty beds for maternity patients, was given by William Horlick, Sr., as a memorial to his daughter. It was erected at a cost of $150,000, and gives Racine one of the most modern hospitals of its kind in the country.

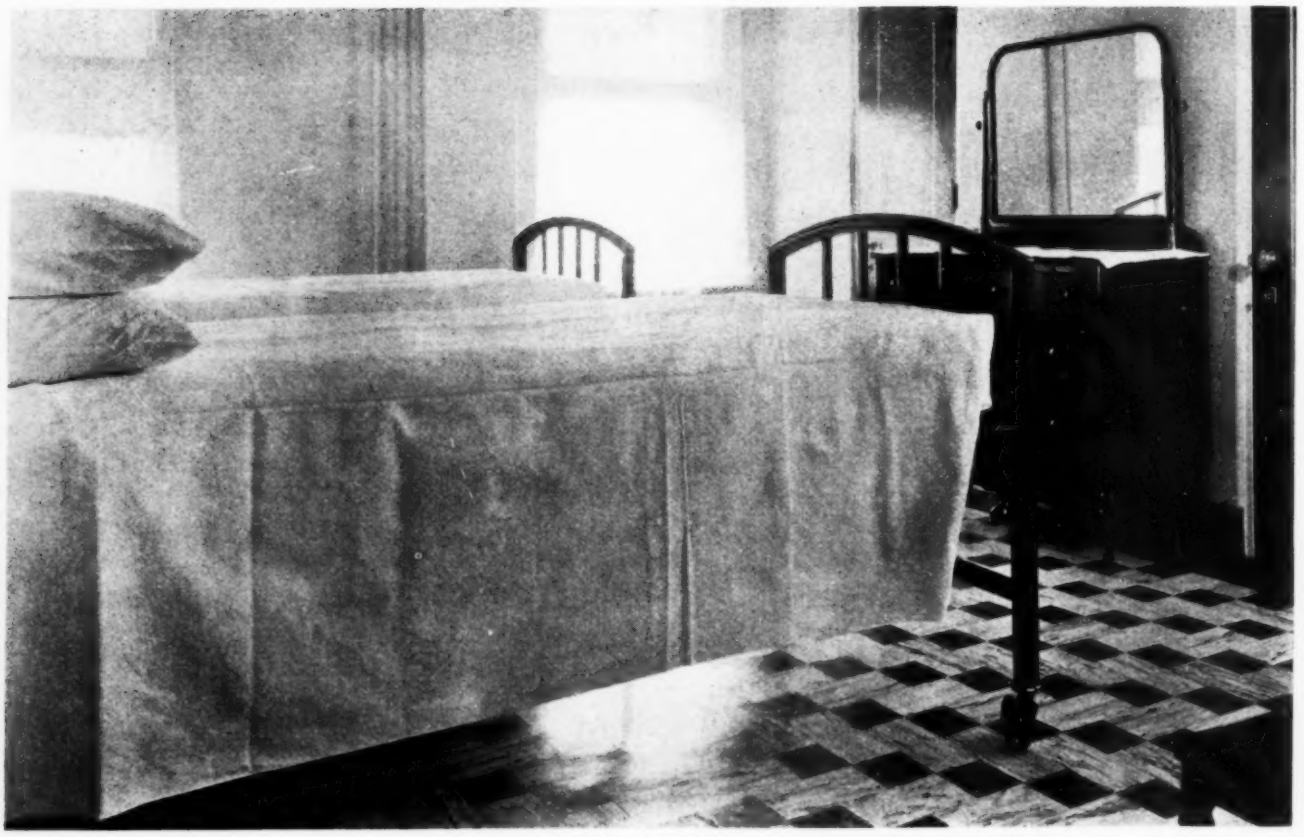
After studying the problem of a maternity unit, the hospital authorities and the architect decided that the building should be an integral part of the existing plant and that it should maintain the same architectural character as the general hospital, which was erected in 1925. They further decided that it should be independent of the general hospital save for food service and utilities. Thus the danger of communication of disease or infection from general patients would be reduced, and the ideal of silence, so desirable for nervous mothers, more easily attained.

The building is a five-story, reenforced concrete structure, faced with brick and Indiana limestone. It is of modern Gothic design. The ground floor, on a level slightly below the surrounding grade, is well lighted, dry and airy. On this floor are a nurses' assembly room, a dietetic laboratory, a service pantry for diet kitchens and provisions for general sterilization. Principal rooms are floored with an asphaltic tile in gray and green, and the walls of hard wall plaster are decorated with a semigloss paint. The furnishings are new.

Visitors enter the building on the first floor level and are received in a spacious lobby, where they may wait in the restful comfort and quiet



The building, of modern Gothic design, is of reenforced concrete faced with brick and limestone.

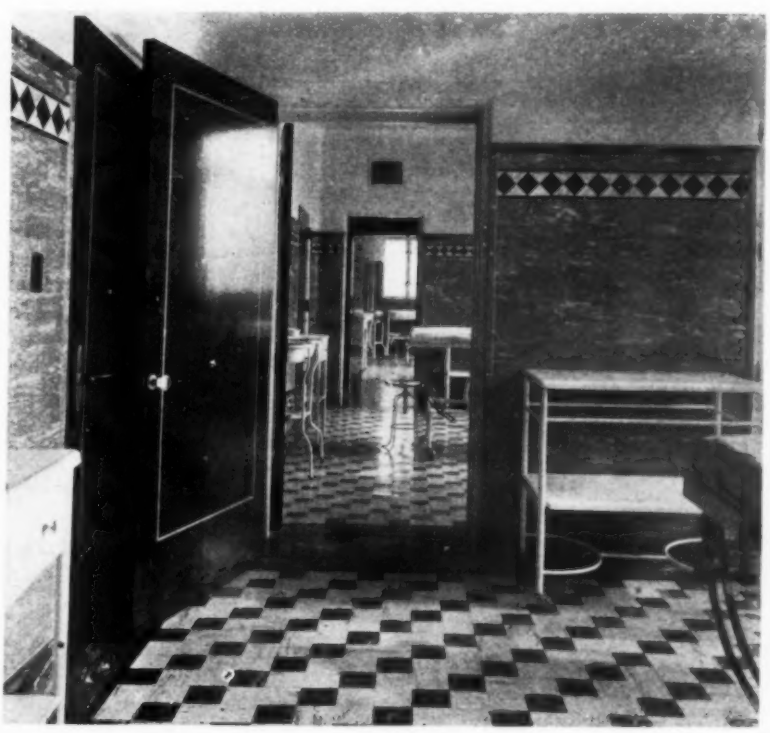


Delicately tinted furniture, windows of ultraviolet ray transmitting glass and a specially designed tile floor in rich color feature the patients' rooms. Below is pictured a corridor leading to the solarium with a nurses' station on the left.

of a private living room. From this lobby, they reach the elevator lobby, which also serves as an entrance lobby for incoming patients who arrive at a carriage entrance in the loggia connecting the unit with a wing built in 1925. This lobby space is arranged to give complete privacy from casual visitors and from the delivery department which, contrary to the usual practice, is on the entrance floor. Beyond the elevator lobby on the left are the receiving and preparation rooms, the lying-in rooms, the emergency operating room and, finally, the doctors' room; on the right there are three delivery rooms, although one is designed and held only for use in exceptional cases or for special purposes, since experience has shown that for a forty-bed unit the third room is rarely required.

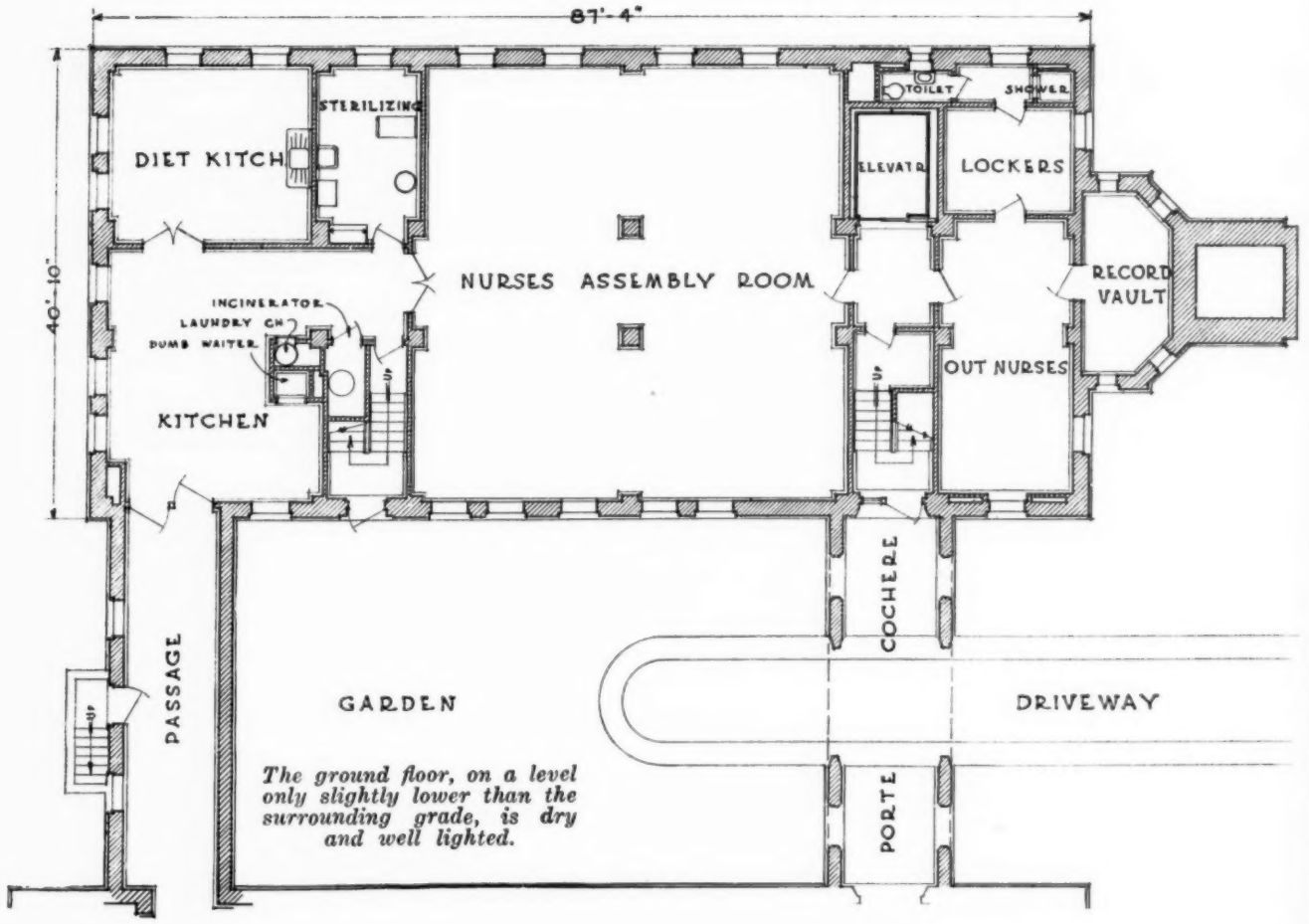
All rooms on this floor are insulated for sound, with cork board on the walls, with soundproof doors and double sash for the openings. All floors and wainscoting are of rubber tile—a sound deadening material in itself—and each room

In the spacious lobby, shown above, visitors may wait in the comfortable and quiet atmosphere of a private living room. A delivery room, shown below, is equipped with rubber tile floors and wainscoting and is insulated for sound control.



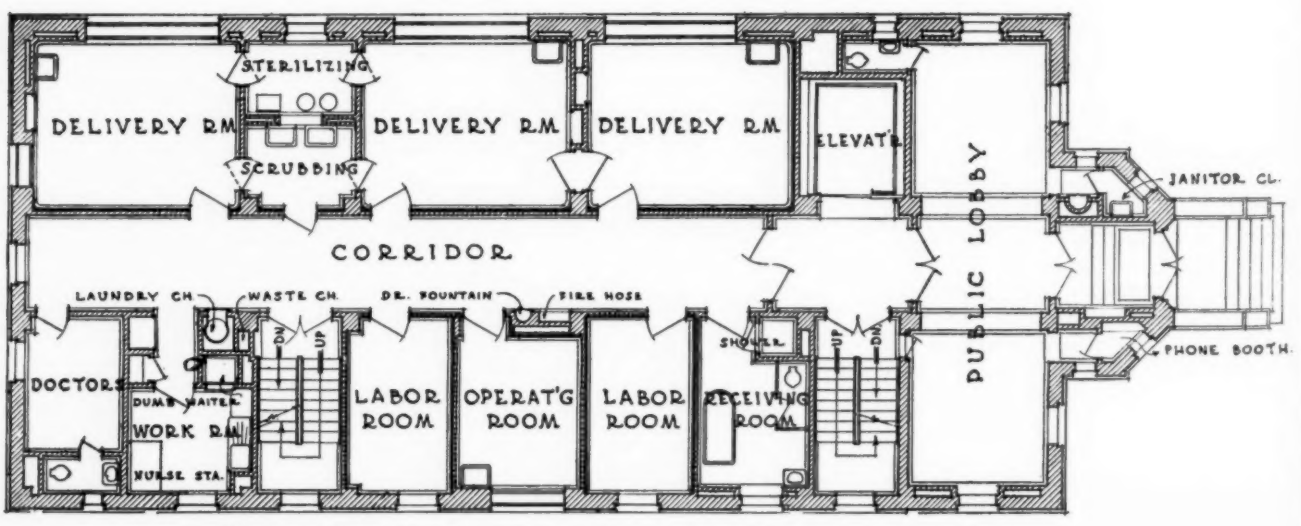
is ventilated by means of a unit ventilating device without the ordinary dirty and noisy trunk duct method of air supply. Exhaust is by means of ducts, that discharge through the roof. After the room has been used, it is possible to clear any room of all odors quickly and thoroughly, without leaving a trace of odor anywhere in the building. Each delivery room has access to the doctors' scrub-up room and to the sterilizing room adjacent. Lighting is by means of an adjustable, full diffusing spotlight type of ceiling fixture. Each room has a surgeons' sink and recessed wall cases for instruments and supplies. Equipment throughout is complete and of the most modern type.

From the delivery floor the patient is taken to her colorful and homelike room by elevator. Each of the three upper floors is similar. Each has a utility room, a diet kitchen, and a nurses' station. At the east end, where both south and east exposures to the sun are available, are the nurseries with adjoining baby baths.

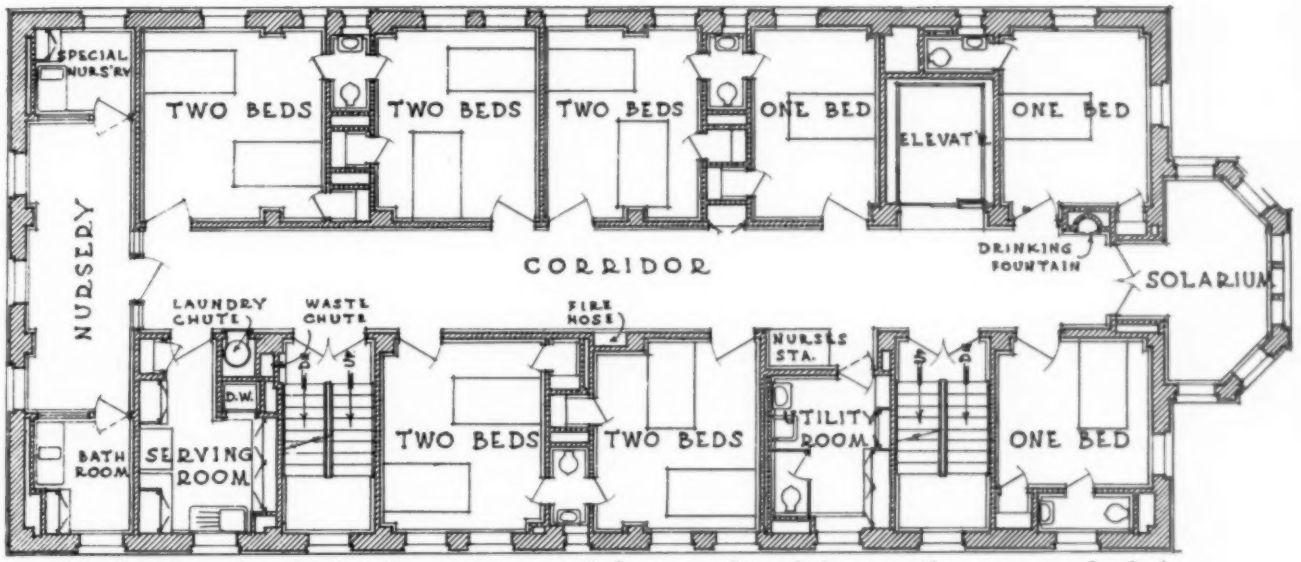


The windows are of a glass that transmits the ultraviolet rays. One additional small isolation nursery and baby bath, adjoining a two-bed ward and reached only through this ward, are reserved for patients who must be isolated. All rooms are floored with especially designed rubber tile in rich color. All walls are of hard wall plaster decorated in color, and each room is fitted with delicately tinted metal furniture. Rooms are heated by means of metal cabinet type copper element units, supplied by a downfed low pressure steam system.

Each room has access to a lavatory in which the closet is equipped with a bowl especially designed to make possible the washing of bedpans. Each room has a roomy clothes closet designed for the proper care of the patient's clothes. Each bed is equipped with a rest mattress and bed



This first floor plan shows the location of the delivery and operating rooms.



A typical floor plan showing the arrangement of the one and two-bed rooms, the nursery and solarium.

lamp for the patient's comfort. Individual equipment is supplied for the care of each patient.

A glass lined laundry chute and a separate chute for waste run the full height of the building. Elevator and dumb-waiter noises are almost completely eliminated by the construction developed for the purpose, and the elevator may be operated either by press button or by switch control. A silent call system is used throughout and all rooms are wired for outside telephone service. Portable telephones are available for bedside use as desired.

Every effort has been made to secure a simple and workable layout involving a minimum amount of expense for upkeep which, while it is complete in detail, may be efficiently operated with the smallest possible staff.

Protecting the Maternity Patient Against Infection

The prevention of infection in both mothers and babies in maternity hospitals, is the thesis of a paper given by Dr. Harmon P. B. Jordan, superintendent, Providence Lying-In Hospital, Providence, R. I., before the meeting of the New England Hospital Association held in Boston.

Such prevention is wholly a matter of safeguarding the mother and infant from every source of infection by a wise formation of rules for the conduct of cases and a painstaking, conscientious enforcement of these rules, says Doctor Jordan. All patients who may be a source of infection should be isolated. Patients should be inspected daily to discover infection when it first occurs and prompt and energetic steps should be taken to prevent its spread.

The protection of the mother and baby against infection begins long before the patient is admitted to the hospital. A careful medical history of the patient should be taken, beginning at least ten days prior to her admission.

"It is reasonable to say that the chief sources of infection are the patient herself, the physician or surgeon, the nurses or attendants, and visitors," Doctor Jordan continues. "If conditions are crowded in the hospital, we are not justified in accepting her.

"Having brought the mother into the hospital and assured ourselves that she is going to be properly cared for and not exposed to additional risks of infection, let us see her safely through childbirth and discharged.

"Fundamentally, a well planned hospital divided into small units for both mothers and infants, with handy wash-ups, is desirable. But almost any large ward can be divided and running water added at small expense. Given small units with adequate water supply so that all attendants may wash their hands frequently, a rigid technique must be established—a technique not too difficult to understand and with no ridiculous refinements that will bring it into disrepute with the nurses and doctors.

"Needless to say every precaution must be taken at delivery that would be observed at any major operation. There should be no unnecessary handling of the baby.

"The practice of long visits by friends or relatives should be discouraged. The visitors should be limited to the husband and parents of the patient, and the length of the visit should be restricted."

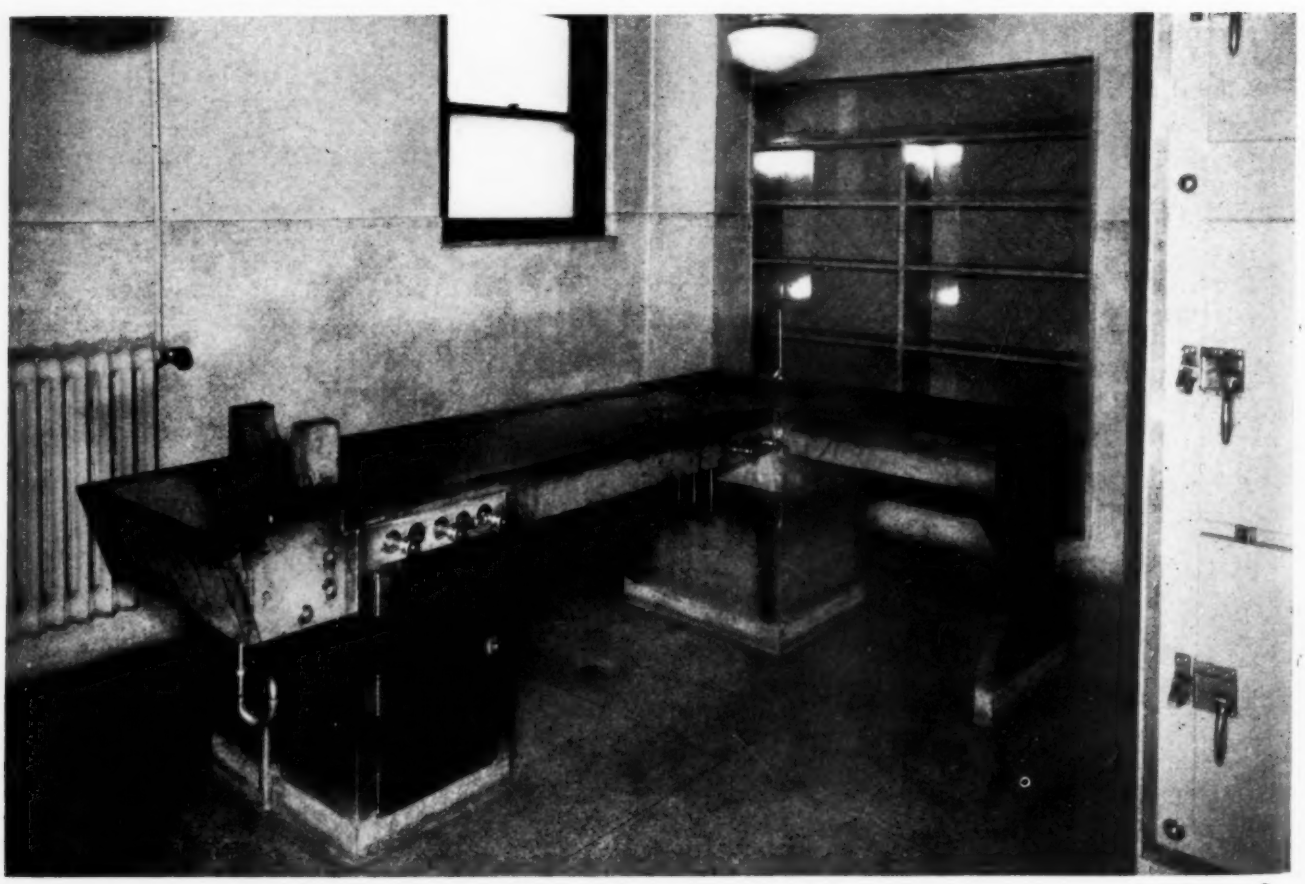
For Those Who Plan Staff Education Programs

An "Outline and Bibliography for a Staff Education Program for the Head Nurse in Service" includes a discussion of the functions of the head nurse organized under the headings of ward managements, nursing care and medical treatment, supervision and teaching, duties pertaining to the organization as a whole and duties pertaining to the community, according to an announcement in the *American Journal of Nursing*.

The outline is being used now in connection with the conferences for head nurses given in New York City under the auspices of the League of Nursing Education, and should, the *Journal* says, be useful to others who are planning staff education programs. It was prepared by M. Cordelia Cowan, educational director, Postgraduate School of the Woman's Hospital, New York City.

Two Departments of Holmes Hospital

The main kitchen, shown above, is arranged for centralized food service by means of tray cars. The mortuary, pictured below, is located in the basement.



Where Economy and Efficiency Meet

By H. ELDRIDGE HANNAFORD
Samuel Hannaford & Sons, Architects, Cincinnati

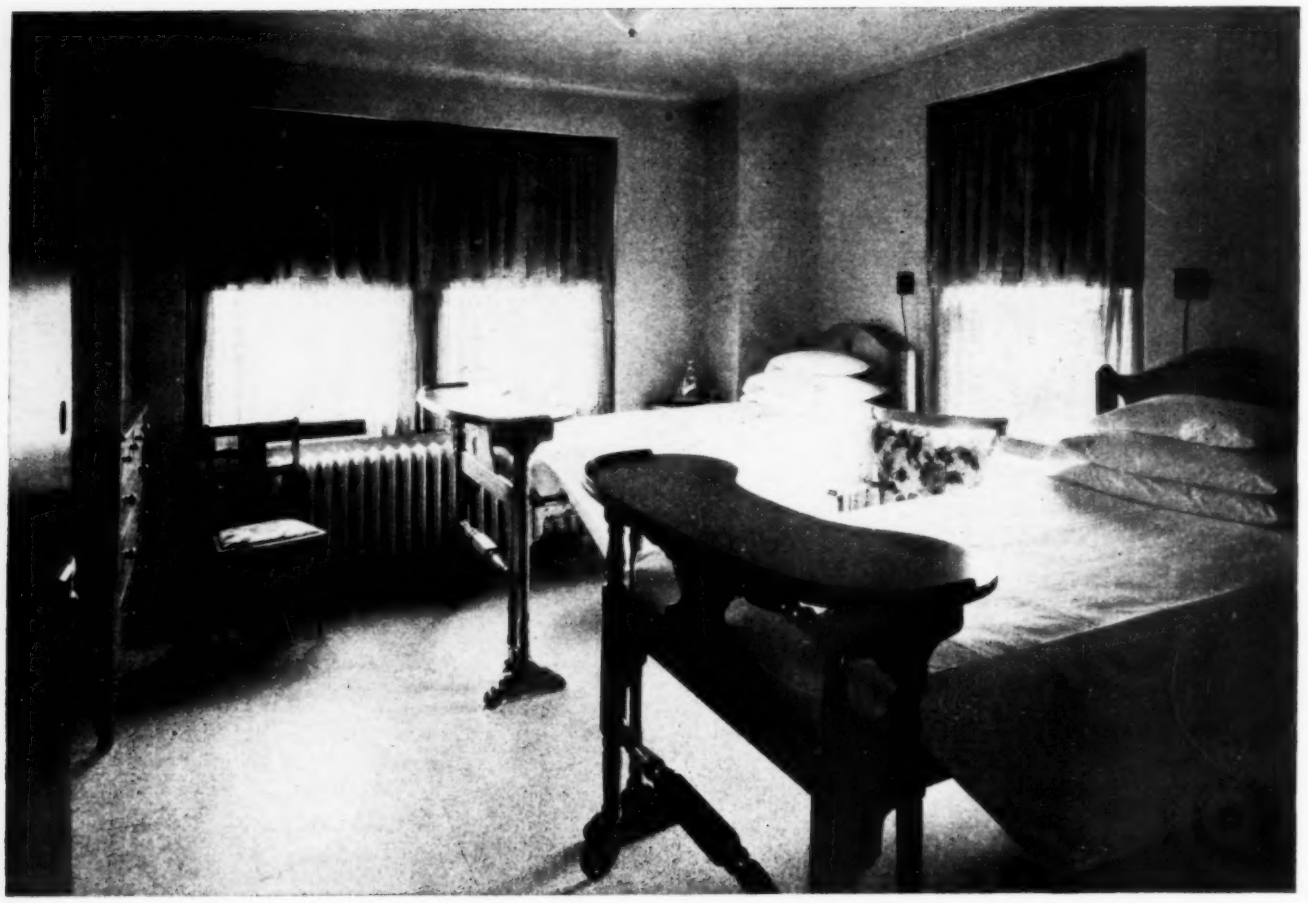
THE Christian R. Holmes Hospital, Cincinnati, is an important part of the city's medical center, consisting of the Cincinnati General Hospital, the contagious hospital group and the college of medicine of the University of Cincinnati. It is designed to accommodate the private patients of the physicians and surgeons comprising the faculty of the college of medicine and it rounds out the hospital development program conceived by the late Dr. Christian R. Holmes for the city of Cincinnati.

The new hospital is at the northeast corner of Bethesda and Eden Avenues. To the south lie the Cincinnati General Hospital and the contagious hospital groups and to the west is the college of medicine. All of these units are connected by tunnels and the power plant of the General Hospital serves the Holmes Hospital and the college of medicine.

The dominant thought in the planning of the hospital was to provide every possible facility for the care and comfort of the patient and also to permit the nursing personnel to render adequate service in an efficient manner.

The main entrance to the hospital is in the middle of the south front. The visitor enters a large and cheerful lobby presided over by the information clerk. Immediately opposite the entrance are the elevators, so arranged as to handle the public, the patients and the supplies without conflict. The west section of this floor (to the left of the entrance lobby) contains the administration section and the quarters for interns. The east section is divided into offices and consultation and

The new Christian R. Holmes Hospital, Cincinnati, is of brick with concrete trim.



The furnishings in the semiprivate room, shown above, were chosen for attractiveness and homelike appearance. The general solarium, in the lower picture, is a cheerful spot.

examining rooms where members of the staff may meet their patients for preliminary examination or postoperative observation. The dietary department occupies the remainder of this floor, receiving splendid natural light and ventilation on three sides. The main kitchen is arranged for centralized food service by means of tray cars.

The second and third floors are identical, except that the rooms at the north end (rear) of the third floor are two-bed rooms similar to those on the fourth floor. On these floors all essential services are centrally grouped and are about equidistant from the three blocks of patients' rooms, thus facilitating the nursing service on the floors. This arrangement also concentrates all of the noise-making elements and permits their segregation from the other parts of the floor. Most of the patients' rooms are provided with a private toilet and each pair of rooms has a common bath. The door between the bath and the toilet compartments is so arranged that the bath can be thrown with either toilet and a private bath provided if desired.

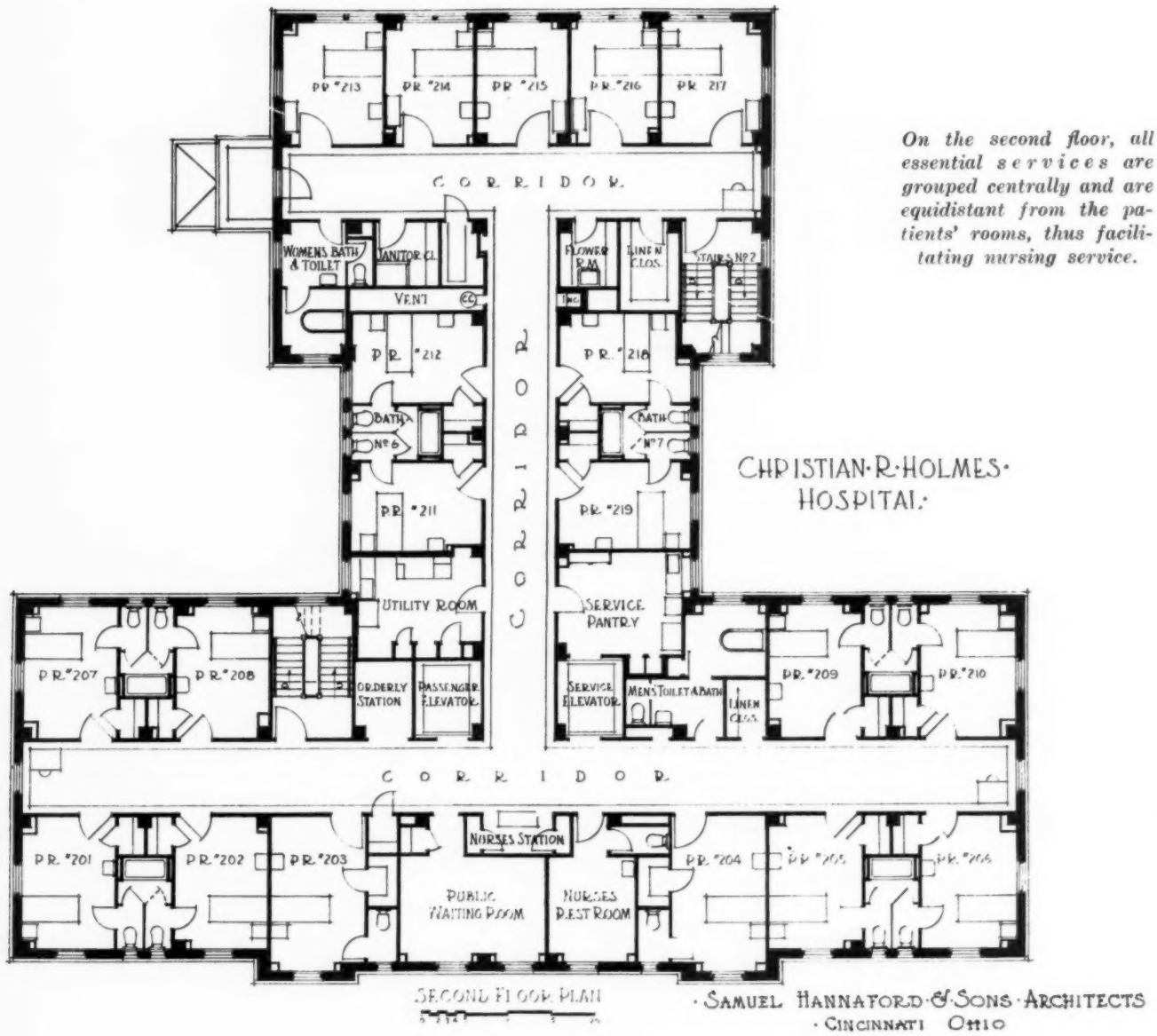
The entire south section of the fourth floor houses the surgery and its service dependencies, the x-ray department, the laboratories and the metabolism and cardiograph rooms. The rear section is arranged for patients' rooms and services similar to the corresponding portions of the third floor.

The fifth floor is entirely given over to heliotherapy and recreation. At the east and west ends of the south portion, also at the north end of the rear section, there are open terraces for natural heliotherapy. On either side of the corridor in the rear section are two lamp rooms for artificial heliotherapy. Across the front, occupying about two-thirds of the entire south section, is a general solarium for the use of all patients.

FIRST FLOOR PLAN

SAMUEL · HANNAFORD · & SONS · ARCHITECTS · CINCINNATI OHIO ·

The administration section, the interns' quarters, consultation and examination rooms and the dietary department are on the first floor.



On the second floor, all essential services are grouped centrally and are equidistant from the patients' rooms, thus facilitating nursing service.

The basement is purely a service floor housing general storage rooms, food stores, the refrigerating plant, the morgue and autopsy room and the pharmacy and drug room. The tunnel connecting the hospital with the college of medicine opens into this floor.

Every effort has been made to create an air of hospitality and cheerfulness throughout the hospital. Anything suggesting an institutional atmosphere has been rigidly excluded. The furnishings and appointments have been selected for their attractiveness and their homelike appearance. Plain but cheerful colors have been extensively used in the decorations and in the furnishings. This same care in selection was given to the linens, the silver and the china.

The floors of the bedrooms, the bathrooms, the waiting rooms and the entrance lobby are of terrazzo, with brass dividing strips forming patterns. Service units, such as the main kitchen, the floor service pantries and the utility rooms, have floors and wainscots of tile. The operating suite and the sterilizer room have tile floors and wainscots. Floors of corridors, offices, the x-ray department and the laboratories are of rubber tile.

Floor service units have acoustically treated ceilings and soundproof partitions.

All cases and equipment are set on sanitary bases and wall cases and lockers are recessed and furred in. Especial effort has been made to conceal all pipes and ducts. The absence of these is particularly noticeable in the main kitchen.

The hospital contains fifty-two beds.

The architects, in conjunction with Dr. A. C. Bachmeyer, superintendent, Cincinnati General Hospital, as consultant, have made every effort to create a complete small hospital capable of rendering the highest type of service at a reasonable cost to the patient.

Expansion at Bergen Pines Provides for Contagious Cases

By JOSEPH R. MORROW, M.D., Medical Director, Bergen Pines Hospital, Ridgewood, N. J., T. B. KIDNER, Consultant, New York City, and C. V. R. BOGERT, Architect, Hackensack, N. J.

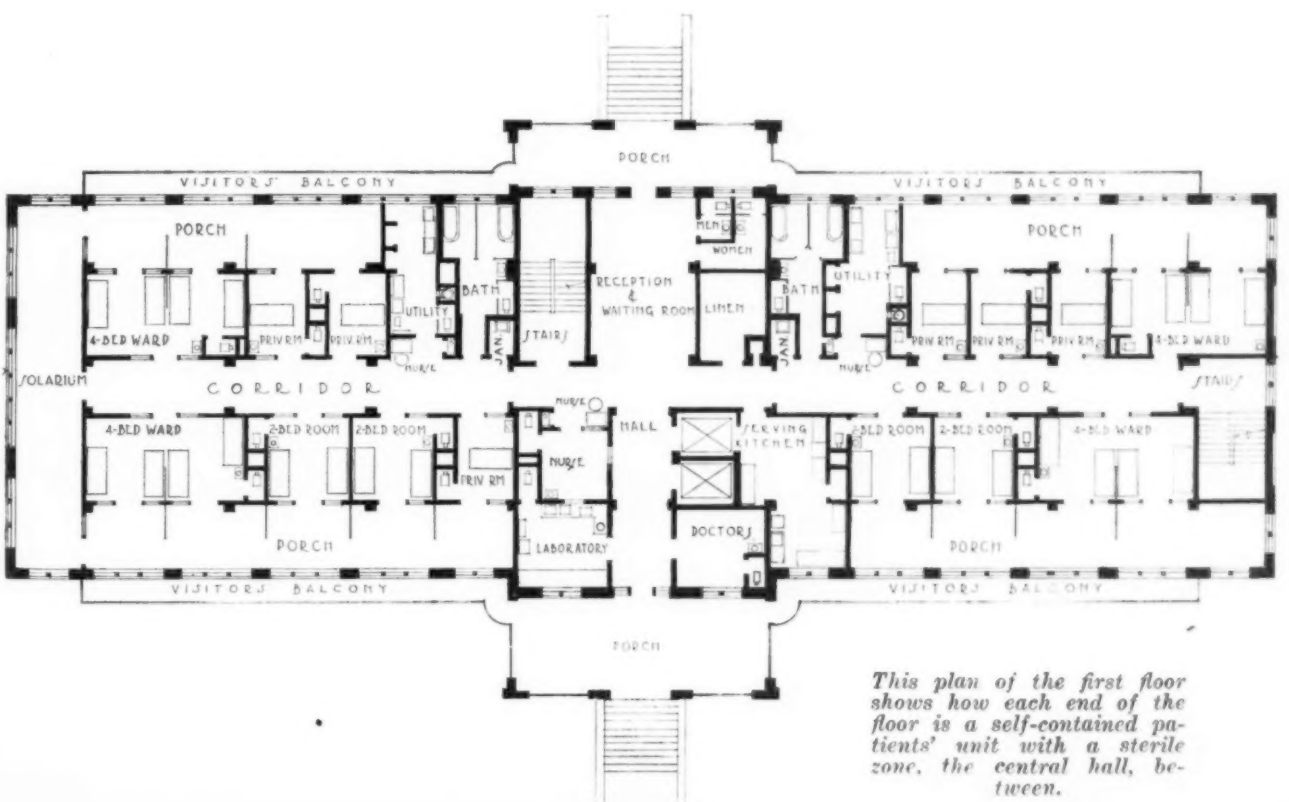
BERGEN PINES HOSPITAL, situated in beautiful surroundings at Ridgewood, N. J., is the Bergen County hospital for communicable diseases. The hospital consists of two groups of buildings, one group being given over to tuberculosis and the other to contagious diseases.

Because of its accessibility to New York City and the beautiful natural features of the district, the population of Bergen County has greatly increased during the past few years and is still increasing. Several additional buildings have been erected during the past ten years to meet the growing needs of the community, amongst others, a modern and well equipped infirmary building in the tuberculosis group.

About a year and a half ago, however, the Board of Chosen Freeholders (the governing authority of the county) decided, on the recommendation of the board of managers of the hospital, to have a survey made to determine the future needs of the county for hospital beds. The survey was made and the factors of the growth of population, the incidence of disease and other relevant data were carefully studied, with the result that a building program envisaging the needs of the county for about ten years to come was prepared and was adopted by the county authorities. A plot plan showing the existing buildings and all the new buildings projected in the building program, was prepared, so that each new building erected will form part of a complete and harmonious whole.

For the first installment of the program, the board decided to erect a central heating plant and to add a new unit for the contagious diseases group, both of which are now under construction.

In planning the building for contagious diseases, the board had in mind an important point that has been emphasized by leaders in the field

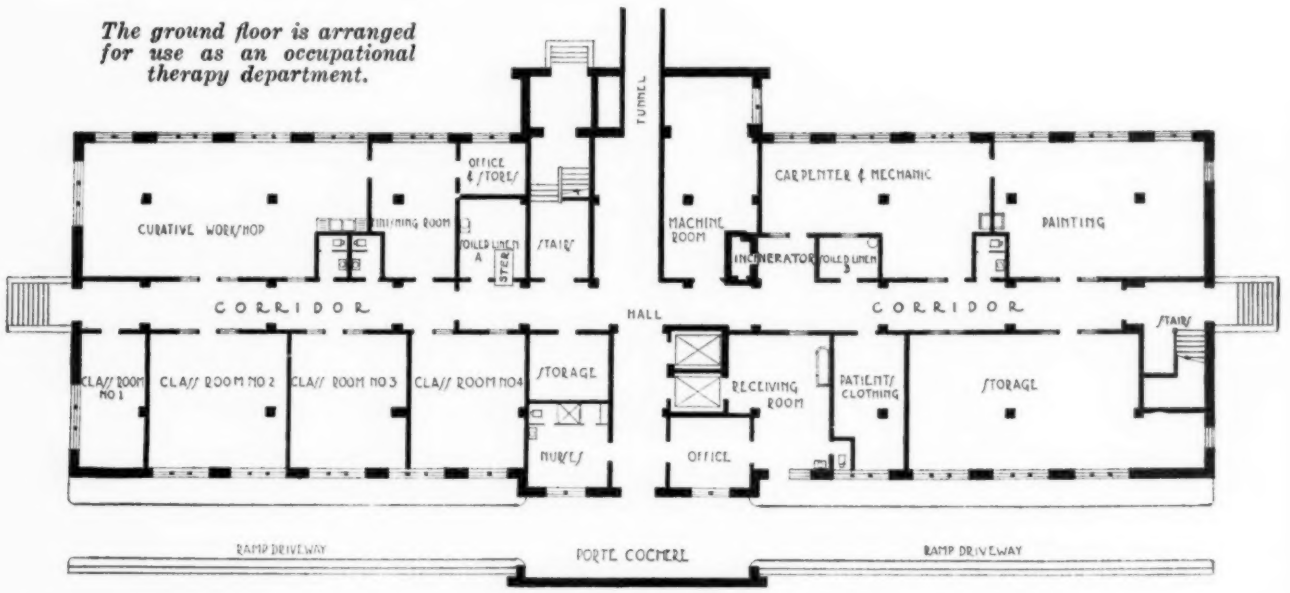


This plan of the first floor shows how each end of the floor is a self-contained patients' unit with a sterile zone, the central hall, between.

of public health during the past two or three years, namely, that while it is the duty of municipal and county authorities to provide beds in sufficient number to meet the peak loads of epidemics of contagious diseases, the buildings should be so arranged that the beds can be used for other types of illness, if this should become necessary.

How Flexibility Was Achieved

Experience has shown that in communities that have provided sufficient beds to meet the demands of an occasional epidemic, for a great part of the time only a small percentage of the beds are occupied. It was therefore determined that the new building must be, first of all, flexible as regards the possibility of its use for contagious diseases



The ground floor is arranged for use as an occupational therapy department.

and that it must also be arranged to allow of some parts of it being used for patients suffering from other diseases, when the demand for beds for patients suffering from contagious diseases is at a minimum.

The accompanying plans show how the ideas of the board have been met.

The building is of four stories, the level of the ground floor being some three feet below grade. The long axis of the building lies about north and south, so that all rooms and wards are reached by the sun during the day.

One-half of the ground floor is allocated to service functions and the other end is arranged for temporary use as an occupational therapy department for ambulant patients from the adjoining tuberculosis group. (A community building, to comprise an assembly hall, a library and shops and classrooms for occupational therapy, is included in the future building program.) It will be noted that there is a separate entrance to the occupational therapy department, which is entirely shut off from the rest of the building. The receiving room for incoming patients is on the ground floor, near the elevators. Opposite is a room, equipped with bath and toilet facilities, for the use of nurses going off duty.

A linen chute is provided in each end of the building, the soiled linen being received in a small room at the foot of each chute on the ground floor. One of these rooms is furnished with a sterilizer, and all linen and clothing will be thoroughly sterilized before they are sent to the institution laundry by an underground passage.

An interesting feature of the building will be noted in the plans of the floors above the ground floor, namely, that each end of the floor is a self-contained patients' unit, with a sterile zone, consisting of the central hall, between. Six different groups of patients can therefore be cared for on these floors, with the possibility of the occurrence of cross infection reduced to an absolute minimum.

Wards Are Small

Each of the six subdivisions is also planned so that in an emergency more than one type of contagious disease could be cared for in one subdivision. To meet such a contingency, and in line with modern ideas of hospital planning, no large wards are provided, the accommodation consisting of single rooms, two-bed rooms and four-bed wards.

Each room and ward has its own water closet and a lavatory bowl with hot and cold water. At the head of each bed is a wall plate with an outlet for a reading lamp, a utility outlet, a nurses'

This second floor plan shows the visitors' balconies, where the patients' friends and relatives may visit.

call signal and a radio outlet. Special types of radio head pieces that can be properly disinfected will be provided. Each subdivision has its own bathroom and a fully equipped utility room. In the center of the building on each floor is an opening leading to an incinerator in the basement.

At the right of the main entrance, on the first floor, is a doctors' room. Opposite to it is a small laboratory for routine work. A two-bed observation room is provided in the central part on the second floor, near the elevators. A large lamp room for phototherapy is provided on the second floor, and a smaller one on the third floor. Adjoining the latter is a room where minor surgical procedures can be carried out.

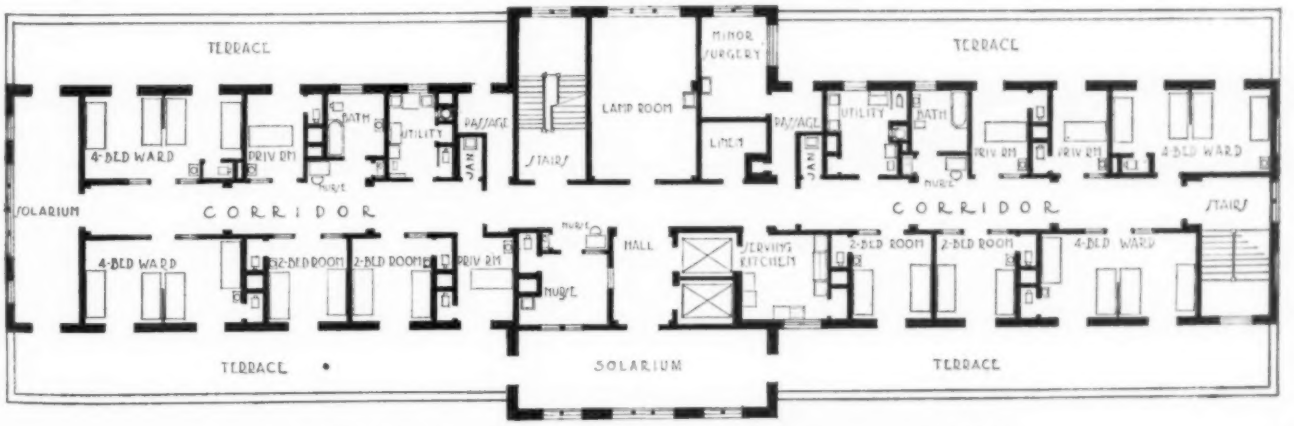
A fireproof staircase for use as an emergency exit is provided on the north end of the building.

At the south end of the building, on each of the three floors allotted to patients, is a solarium, enclosed with ultraviolet ray transmitting glass. In addition to these solariums, all patients' rooms and wards on the first and second floors have glazed porches adjoining, on which the beds can be wheeled with a minimum of time and effort. On the third floor, instead of an enclosed porch, open terraces are provided in front of the patients' rooms and wards.

A serving kitchen, equipped with a sterilizing dishwasher, is provided on each of the patients' floors in the center of the building. The food will be brought in heated carts from the central kitchen, via the complete system of tunnels which are a feature of this institution.

Providing for Visitors

Special facilities have been provided for the purpose of enabling visitors to see and talk to a patient without entering the patients' section. The safeguarding of visitors from the possibility of infection has always been a difficult problem in hospitals for contagious diseases, but in this case it is believed that a solution of it has been found. On the first and second floors a light, iron balcony has been provided on each of the long



On the third floor, instead of porches, open terraces are provided.

sides of the building. Visitors will proceed upstairs by means of the stairway, or by an elevator, into the central sterile zone of the building, thence to the particular balcony that passes the window of the patient or patients they desire to visit. On the third floor, visitors will use the open terraces, already mentioned. All windows will be carefully screened so that when the sashes are opened there will be no impediment to conversation, although actual contact with a patient will not be possible.

In the interior finish of the building, generous use has been made of tile for floors and walls. Special attention has also been paid to ventilation, all toilet rooms, utility rooms, bathrooms and serving kitchens being furnished with vent ducts leading to the roof.

Taking advantage of the fact that space was available for it under the roof of the central portion of the building, a fireproof room for the storage of old x-ray films has been provided there, and is equipped with the latest safety devices.

The total patient capacity of this building is ninety, and it is hoped that it will be ready for occupancy early in 1930.

American Hospitals as Viewed by British Administrators

What the British representatives to the International Hospital Congress in Atlantic City thought of America, American hospitals and the congress is briefly yet comprehensively expressed in accounts which each gave of his visit to these shores and which are included in the tenth annual report of the voluntary hospitals in Great Britain published under the auspices of the British Hospitals Association. Those who attended the congress as representatives of the association were W. H. Harper, house governor and secretary, Royal Hospital, Wolverhampton, Arthur Griffiths, O.B.E., secretary, East Suffolk and Ipswich Hospital, Ipswich and J. Rowse Mitchell, secretary, Chester Royal Infirmary, Chester.

Mr. Harper mentioned particularly the exhibit, praising its completeness. Speaking of the way the American Hospital Association arranges its conferences, he said, "A large number of subjects are discussed at a kind of round table conference, but it did seem to me that the menu was rather too full to permit of proper digestion."

"It is difficult to describe the American Hospitals," he said. "To those of us accustomed to work in buildings of two, three or four stories it was indeed a shock to find institutions varying from a few to eighteen or twenty stories. Our first impressions on entering a hospital were those of space and comfort—I had almost said luxury. The size of the staffs in the various departments are such as to stagger one."

Mr. Harper spoke of the Columbia-Presbyterian Medical Center, New York. "One cannot but be impressed by the fact that although in the erection of these hospitals money has been no object, their success is not, so it seems to me, due to money only. Much of it is due to the cooperation and coordination that are apparent."

Concerning the nursing service, he said, "The standard of nursing is improving rapidly. America is keenly alive to the importance of the nurse in the science of healing."

Mr. Griffiths said that it did not seem to him that the practical nursing was quite so efficient as in Great Britain. The hospitals, he said, appear to employ comparatively few staff nurses but a much greater percentage of student nurses. Of the general hospitals in the United States, 75 per cent do not employ graduate nurses. They expect the student body to carry the full load.

"Organization is the keynote of all modern hospital administration in the large cities in the States," Mr. Griffiths said. "To an English hospital administrator it seems amazing that so much space should be allocated to offices and so great a clerical staff engaged."

Mr. Griffiths compared the methods of raising money for hospitals in England and America. "There seems to be no limit to the amount of money that can be raised for new hospital buildings by donations from wealthy citizens. Legacies help the endowment funds to a much greater extent than in this country. The system of raising money for new buildings and extensions is worthy of emulation. Plans are prepared together with a price schedule of each separate part of the building or each important article of equipment and an individual donor is sought—and found—to defray the cost of each section, which is looked upon as his personal memorial.

"American hospitals, as a rule have considerable free capital at their disposal. They are able to command large sums for new buildings and extensions. The interest on their endowments provides nearly a quarter of their annual expenditure. But their regular voluntary income is comparatively small.

"The position in England is usually the reverse. The free capital of our hospitals, generally speaking, is small and the income from endowments bears but a small ratio to the total revenue, but there is a regular income from contributory schemes, annual subscriptions, church collections and donations which enables our hospitals to pay their own way."

Mr. Mitchell sketched his impressions briefly.

"Is there a danger in these elaborate buildings and systems, run by very large staffs, that the systems will become more important than the patients?" he asked. "It is a tendency to be watched."

He complimented America in these words, "Fearlessness in experiment is a feature of American life and work. It is a matter for rejoicing that a great nation with abundant means and energy is studying earnestly and experimenting boldly in hospital construction and management."

Hospital, Unable to Pay Its Debts, Is Closed by the Sheriff

Because the Presbyterian Hospital, New Orleans, La., was unable to pay its debts, the sheriff closed its doors on December 9, 1929. The closing of the hospital followed litigation that began six months ago when the mortgage on the hospital was foreclosed, according to the *Journal of the American Medical Association*. The hospital is said to be in debt about $145,000, and a recent drive for funds was not altogether successful.

Patients in the hospital at the time of its closing were sent to other New Orleans hospitals. Most of the nurses in training were transferred to the Baptist Hospital.

The Presbyterian Hospital is about twenty years old.

A Nurses' Home That Promises to Be a Home in Its Truest Sense

By SISTER M. LAURENTINE
St. Francis Hospital, Pittsburgh

HOSPITAL problems are usually spoken of in the plural number, seldom in the singular. When, therefore, the question of improvement or building is discussed, there is usually more than one department to be considered which makes the decision as to the greater need difficult.

As an example of this may be cited the building of the nurses' home at St. Francis Hospital, Pittsburgh. For nearly ten years the authorities were confronted with the need for a new residence for the nurses, apparently the most imperative of all other building needs. Property was purchased in a rectangular block which it was felt would gradually lend itself to additional purchase. At the time the property was bought it seemed to be the ideal location for the nurses' home, since it practically adjoined the hospital property and could be readily connected. A short time after the original purchase, which consisted of several lots near the center of the block, we

were able to acquire the corner lot. It was then that we learned that the property between was not for sale. The owners were approached from many angles, but they would not sell.

Hoping against hope, we waited. Finally we decided to begin plans for a new hospital pavilion, with the thought of temporarily utilizing for nurses some of the floors in this building. This was not a satisfactory solution, but none other seemed possible. That we needed the new hospital wing was an undebatable question. A half hour spent in going through our crowded wards or in listening to the office making continual requests for beds and rooms when there were none, would have convinced anyone.

That a hospital of 650 beds is sufficiently large, is the general opinion of most hospital people. We think so, too. We are, however, decidedly overcrowded with our 650 beds, lacking space for service and utilities that are normally essential in a hospital of this size. The plans for

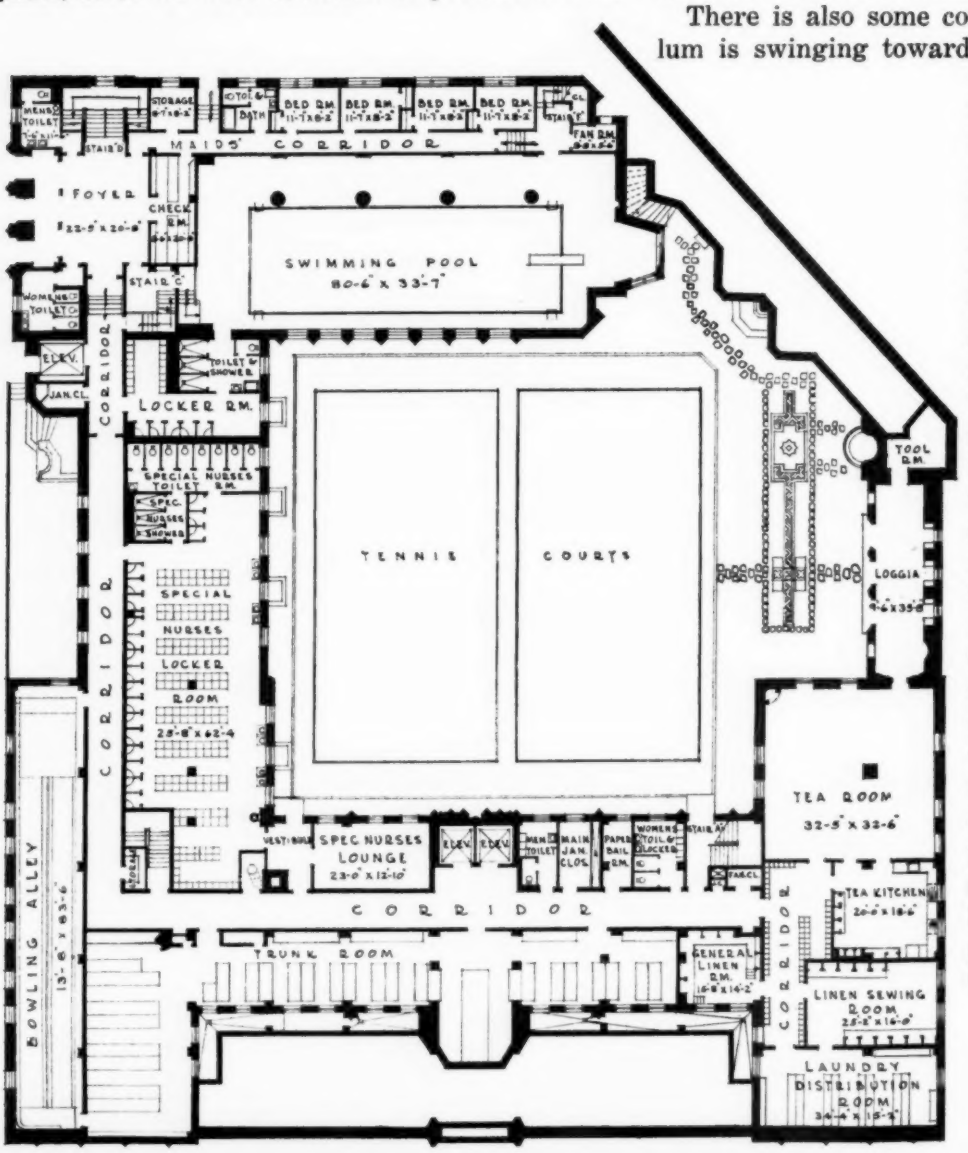
the hospital were made almost to completion when in July, 1928, we again seriously considered the nursing situation, precipitately laid aside the building plan and set out to secure property for a new school. An entirely different site on Forty-Fifth Street across from the hospital was looked upon favorably, and immediate efforts were made to purchase the entire plot. This was no easy matter, because every lot was built on. Many of the homes were occupied by the owners who, being old residents, looked askance at the prospect of changing their home sites. At any price, and some prices were fabulous indeed, every lot was purchased and the deeds were in our possession by October.

In the meantime, work on the plans had been started and had progressed fairly rapidly. Traversing this property were two short streets which the city closed after the usual routine procedures. This, of course, took considerable time and delayed somewhat the development of the plans, since we were reluctant to proceed too far lest there should be some hitch in the closing of the streets which would necessitate a complete restudy of the proposed building.

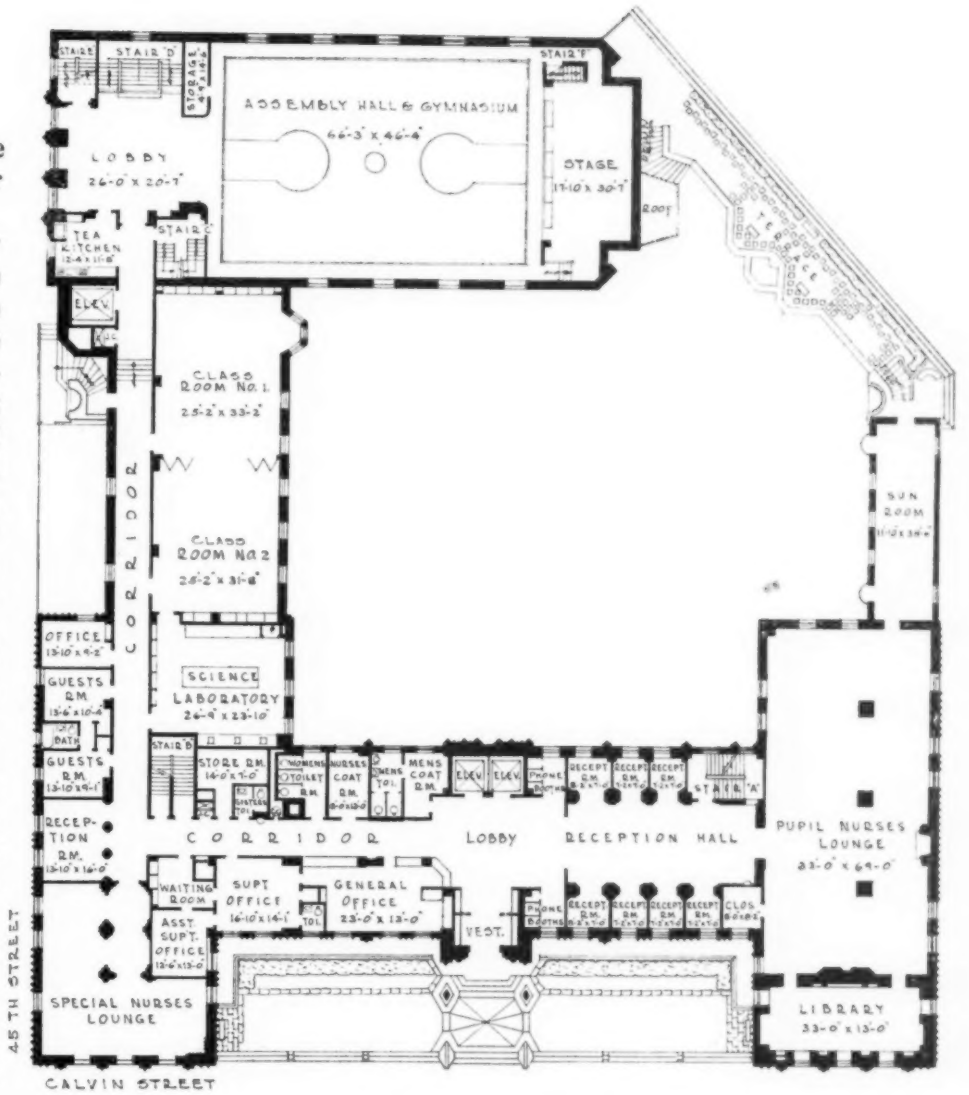
In developing our ideas for the school, we naturally considered the possible future growth of the hospital as well as the future educational standards of nurse training. We took into consideration, also, our neighborhood surroundings in their relation to recreational and social opportunities and we studied the minimum individual needs of the young woman when she first enters a school of nursing.

It has been a frequent criticism that nurses demand a great deal, both as students and as graduates. Perhaps this is true occasionally, but those who know nurses intimately, who live with them and direct their training will agree that as a group they are self-sacrificing and make few demands. They may desire much, which is a natural emotion, but the contribution they make to humanity far exceeds any desires they may have for creature comforts.

There is also some contention that the pendulum is swinging towards making nurses' homes too luxurious. Perhaps one or two homes may have indulged rather profusely in Oriental hangings and antique furniture, yet this is no reason for our maintaining a stolid defiance against furnishings that savor of luxury only in that they de-institutionalize the building which, for three years at least, these young women must call "home." The ordinary American home of to-day is far more comfortable and convenient than it was a decade or two ago, and we feel that the young women who place themselves under our tutelage should have as nearly as possible the comforts and advantages of the homes they have left, plus many of the recreational and educational



This plan of the ground floor shows the excellent facilities for all sorts of sports.



An assembly hall and gymnasium as well as the various lounges are on the first floor.

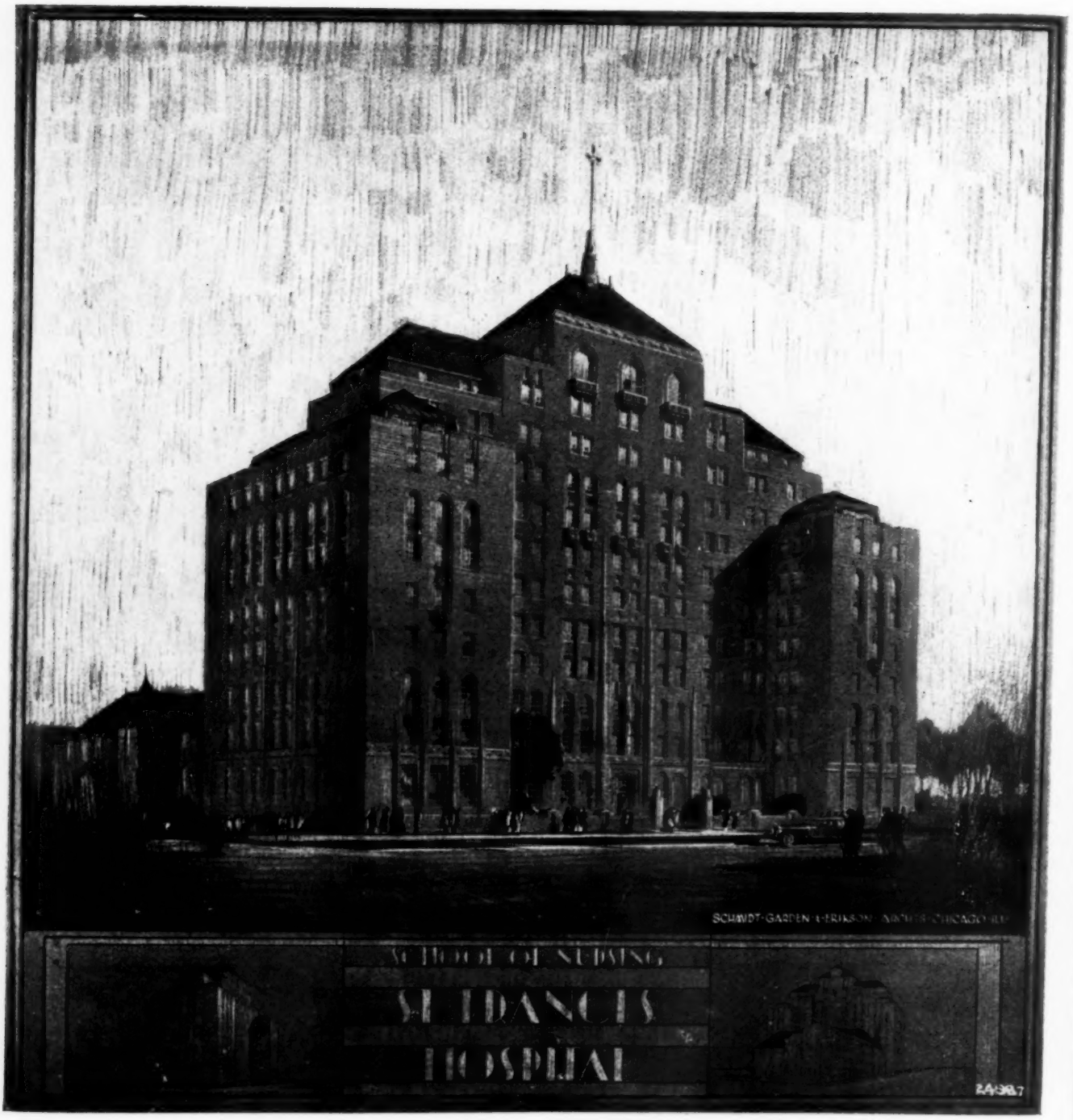
opportunities that are offered in the higher schools of learning.

In order to profit by the experience of those who have built large nurses' residences in the past five years, we visited and studied about twenty schools in ten of the important hospital cities in the East and in the Middle West. After we had obtained diverse opinions on some of the important features in this type of building, we realized that there is no definite standard that is applicable to all and that the character of the school, its future, its location, its environment and its internal management determine the type of a building that will be most satisfactory.

In a general way, our plan called for 400 individual rooms, an educational department, living rooms, reception rooms and a library, a gymnasium building, a chapel, an infirmary, offices, graduate nurses' locker and dressing rooms and the usual linen, laundry and trunk rooms and other facilities.

There were many conflicting ideas as to the advisability of single or double rooms. Double rooms were considered more advantageous for probationers, because they lessened the expense of maintenance in addition to reducing the construction cost. It was argued also that many girls like a roommate and are happier than if they room alone. These arguments are not altogether sound. Undoubtedly double rooms reduce the cost of building, but the cost of maintenance is not lessened because more supervision is required to maintain discipline. Nor is the sense of property ownership and responsibility easily inculcated. With regard to friendships, many instances are known of permanent breaks among girls which perhaps would not have occurred if they had been in separate rooms. Intimate friends are sometimes quite dissimilar in personality and in individual traits, and more frequently a promising student will suffer from the unhealthy influence of a careless or dilatory companion, than will the latter be impressed by the earnestness of her roommate. Furthermore, double rooms tend to break down the sense of reserve, inasmuch as each occupant is denied the privilege of privacy. Educators, therefore, should make every effort, to further this sense when it already exists and to cultivate it when it appears lacking.

It was felt, therefore, that individual rooms were desirable. It was our thought to make them large enough to take care of the necessary furniture and small enough to prevent their being used for two beds. It may look as if the question of rooms was given an exaggerated amount of investigation, but since we were planning a building for 400 nurses it appeared reasonable to evade the responsibility of making 400 errors. We considered the amount and kind of furniture we



should need to select for each room. We then decided on the space that would be necessary for the arrangement of this furniture without crowding. It was decided to make the rooms 14 feet long, 8 feet and 1 inch wide and 8½ feet high, with a clothes closet 3 feet by 2½ feet.

The equipment will differ little from that in use in other nurses' homes. Each room will have a lavatory and a built-in medicine cabinet in the wall above the basin. We are planning to use colored instead of white enamel fixtures. Some persons argue against a lavatory in the room on the ground that it is not in keeping with fine furniture, especially in a small space, and that it also invites the student to do her laundry work in her room. A further argument is that it adds to the cost of construction. The colored fixtures, we hope, will answer the argument of those whose esthetic sense might be offended by ordinary white enamel. We have provided on each floor a small laundry fully equipped and having a steam dryer, to offset the temptation to the nurse to do laundry work in her room.

As to the first cost, it must be remembered that no extra space is needed for this fixture in the room, whereas considerable space is required to

provide a separate room for wash basins, plus the addition of dental lavatories, allowing a ratio of one to four or five of the former and one to eight of the latter. The cost of the cubage for this room would approximate the price of the extra lavatories and plumbing installations. Even if it did not, the saving in upkeep and repair would balance the deficit. When responsibility can be definitely placed, the nurse is more likely to take better care of her room. When a lavatory is in common use, it is difficult to develop a sense of responsibility on the part of those who use it.

Open Air Sleeping Rooms Provided

The arrangement of the six typical floors, each of which consists of forty-nine rooms of the size mentioned and two larger rooms, with bath between, for supervisors, is shown in the accompanying plan. On the seventh floor there has been provided in each of the two south wings a suite consisting of a sleeping porch of four beds, with an adjoining study room and dressing room, the latter containing lavatories and lockers. This will offer health facilities to students who may need to sleep in the open air.

The tenth and eleventh floors are arranged for supervisors and have twenty-one and nineteen rooms respectively. They are in pairs, with bath between. One room on each floor has a private bath.

The infirmary for sick nurses is on the second floor east. It contains twelve beds arranged as follows: five single rooms, one two-bed room, a five-bed ward, each with individual service rooms, and one room with a bath. This section is complete, with a serving kitchen, a dressing and utility room, a nurses' office and station, a small reception room and all the services of a regular hospital section. Adjoining the infirmary and separated only by double doors, are six rooms arranged in pairs with bath between, which can be used as an extension of the infirmary should this be necessary.

In the installation of bathing facilities, showers are used generally. This is true of all the supervisors' rooms. On the student floors there are three showers to one tub. In making inquiries as to the most satisfactory arrangement, one superintendent said that in the old home where tubs prevailed the remark was frequently made, "It's a wonder they don't get showers." In the new home showers are pretty generally used, and now the comment is, "Too bad we don't have tubs." Presumably the absence of a thing enhances its value. However, we think there is no argument as to the sanitary value of showers over tubs. In addition, we are installing in each bathroom a deep sink in which students may wash their hair. There is also a hair dryer. Practically all of our students have long hair, and the room lavatories are rather small for hair washing purposes.

The planning of the educational department was attempted only after a thorough study of the needs of a school this size. In the educational department proper, we have in mind the work of one class or a section of the class and not the assembling of the entire school. Nearly all the schools visited seemed to be fairly uniform in the number and size of lecture rooms and laboratories in relation to the number of students. Ours presents about the usual features. There are two lecture rooms of eighty and sixty-eight places respectively. These are divided by soundproof folding doors which will permit them to be used as one large room if necessary. One of these rooms will be equipped for classroom teaching of the sciences and the science laboratory adjoins it, thus permitting lecture and laboratory teaching to coalesce. An instructor's office is also connected with this group.

A small classroom that seats thirty-five students is intended for special sections or postgraduate lectures. Two study rooms each seat twenty-five. Between them are an instructor's office and a reference library. Dietetic and science laboratories are each planned for twenty-four students. The science laboratories are to be equipped for chemistry, bacteriology and anatomy class work. It was suggested that laboratories be arranged for twelve students. A university professor and a high school chemistry teacher, however, were both of the opinion that one teacher to twenty-five laboratory students is a fair average and that it would be better to have an assistant instructor if necessary rather than to equip two small, distinct laboratories. Connected with the diet laboratory is an office for the instructor in dietetics.

How Classrooms Are Arranged

We were particularly interested in the arrangement of the room for the demonstration and practice of nursing procedures, since there was a wide difference in this particular section of the various educational departments visited. Every teacher of practical work knows how important this room is, which has perhaps a larger percentage of hours of occupancy than any other part of the educational suite. It must have the facilities for demonstration by the teacher and practice work by the student.

The criticisms we heard and endeavored to overcome in the educational unit were: (1) un-

satisfactory seating—seats either too far away from instructor, which necessitated the class standing, or seats on a line which prevented the students in the second row from getting a good view of procedures, or no seats at all; (2) conflicting opinion as to whether there should be a room for demonstration and one for practice or whether one room only should be used; (3) the placing of utilities in a small room similar to that on the hospital floor, which allows only a limited number of students actually to see the demonstration, or the placing of utilities along the wall in full view of the class; (4) the various types of utilities necessary for teaching purposes.

Features of the Demonstration Room

The room designed in our building is 35 by 45 feet, with south and west exposure. There are windows on two sides. The seats will be arranged in two elevated semicircles, the first row being two feet above the floor and the second a foot higher. Six beds will be arranged in the space below the seats. There will also be an instructor's table, movable, so that it may be brought close to the class when procedures requiring its use are to be taught. Floor plugs will be provided so that an electric stove may be used with the instructor's desk in any position. The room will be used for both demonstration and practice. The utilities will be placed on a 12-inch platform along the wall, in full view of the class, and a rolling screen with blackboard facing will cover them when they are not required for class work. At the left of this will be a large closet for a stretcher, a wheel chair, and various equipment and supplies. On the opposite walls, between the windows, will be cupboards for tray set-up, a linen closet and six dressing rooms for the students when they are used as class subjects.

The demonstration room will seat about 100 persons. It has large double doors, so that all furniture may be removed and the room used for any special clinic or lecture.

The arrangement of the educational department may be more easily understood if the drawings are studied. As will be seen, it covers two floors of the west wing. We would have preferred to have it all on one floor, but the style of building best suited to our group did not lend itself readily to such an arrangement. We believe, however, that the department is well planned for the convenience and comfort of both students and instructors.

In the recreational field we have perhaps indulged ourselves extravagantly but, owing to our location in a section devoid of social and play opportunities, we decided to provide for the young women presenting themselves to us all the outdoor and indoor recreation possible.

The entrance lobby opens on the right into a large reception hall on each side of which are three small alcoves, 8 by 6 feet, for individual guests. This space is for any outside visitors whom the students may wish to have. At the end of the hall and up a few steps is the large living room, 64 by 32 feet, for students' use only. An open fireplace for burning logs in cool weather will make the room cheerful and homelike. Here the nurses may gather and relax on their hours and evenings off duty. Adjoining this room at the south will be an attractive library, 32 by 18 feet, with wood paneled walls and built-in bookcases. Windows on the south and east will allow an abundance of light and sunshine. Here the lover of books will find much inducement to while away her leisure hours. Off the north end of the living room, but in the long direction, is a sun porch overlooking the garden and tennis courts, which are entered from the porch by means of steps and terraces.

For the graduate nurses there will also be a living room on the first floor, on the west side of the building. We have placed this apart from the students' reception room for the reason that the students may have visitors until ten o'clock only, whereas a more flexible schedule is naturally available to supervisors.

On the twelfth floor, forming a sort of tower, is an informal lounge or sun room for the use of all nurses. This will doubtless be a popular room, especially for the graduates, since it is just above their living quarters and commands a magnificent view of the city. It may be used for the informal entertainment of women friends as a convenient serving room adjoins. Opening off this sun room are four small terraces where seekers of fresh air may bask at will. Open air terraces will also be found on the second, ninth and tenth floors.

Providing Privacy for the Nurse

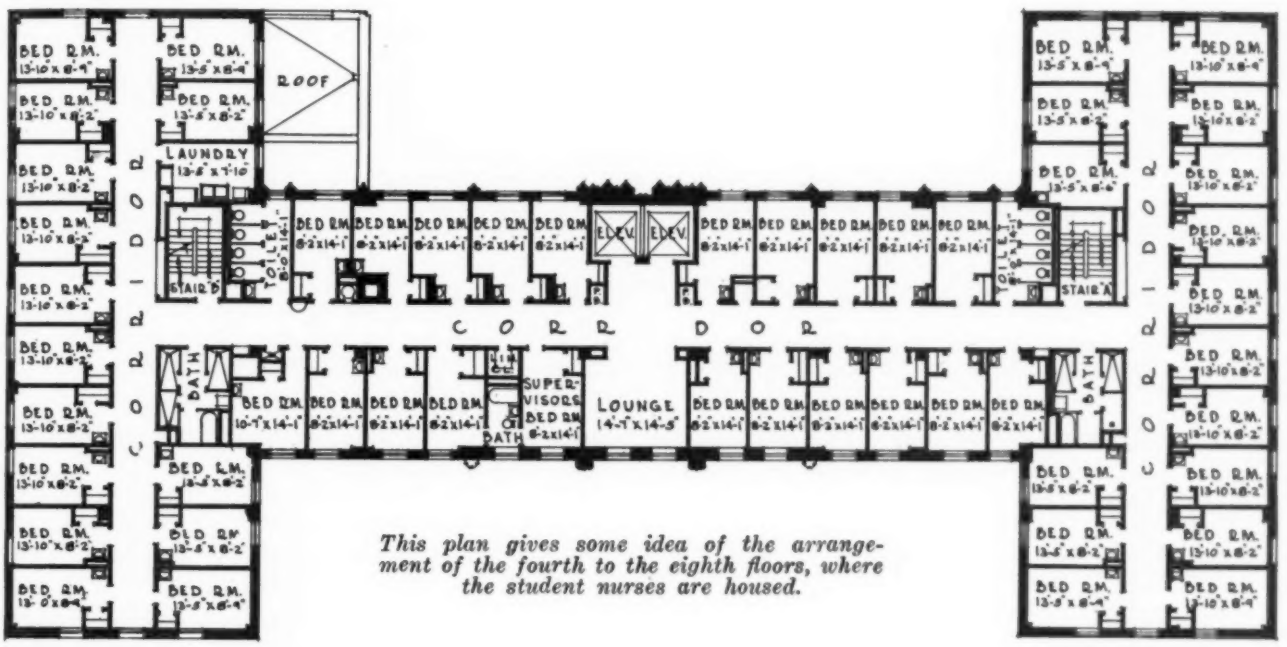
In order to maintain the nurse's right to absolute privacy in her own room, there has been arranged on each floor a small sitting room, where groups may congregate informally and discuss the latest news. A radio installation here will add to the charm of this room.

For athletic events there will be a recreation building two stories high, with an entrance on Forty-Fifth Street. The ground floor will contain a swimming pool of standard size, with the latest equipment for lighting and purifying the water. Dressing rooms, lockers and showers are likewise provided here as well as a visitors' gallery.

On the first floor is the combined auditorium and gymnasium. We gave due consideration to the question of separating these and designing a room for each, but it seemed extravagant to set apart two large rooms for occasional use only. Several instructors of large schools said it was their experience that the young nurses coming in are interested in basket ball. In the second and third years, however, they find sufficient physical exercise in their floor duty and relax in their enthusiasm for the more energetic sports. It was generally agreed that swimming outlives other interests and that it is indulged in quite generally by students and graduate nurses. It helps them to throw off the fatigue of the day, and thus refreshed and stimulated they are ready to take part in other recreational and educational activities.

We therefore decided in favor of a swimming pool and a combined auditorium and gymnasium, the latter having a seating capacity of 700, which will enable us to accommodate commencement exercises, dances and other school functions. There is a foyer, with adequate check rooms; a large stage with wings, under which is considerable storage space for the chairs when they are not in use; a balcony, with step floor throughout; a moving picture booth and there are such other features as are usually part of a well equipped auditorium. In addition, there are provisions for gymnastics and games. The lockers and showers mentioned in connection with the swimming pool are so arranged as to be accessible for the use of any visiting athletic teams when competition games are played.

The recreation hall is in a sense a separate unit since it adjoins the laboratory, save for an 8-foot drive, and with part of the educational suite forms a low building that is connected with but quite apart from the nurses' residence proper. The arrangement, as the drawings show, will permit of a general use of all the facilities without conflicting with the nurses' home life in any way. The best returns for our investment will be the compensation of giving wholesome and pleasurable recreation and diversion to all our hospital family.



This plan gives some idea of the arrangement of the fourth to the eighth floors, where the student nurses are housed.

Another provision for indoor recreation is the bowling alley which is on the ground floor adjacent to the auditorium.

The tennis court in the garden is the regular standard size for competitive games. It will have a concrete floor so that during the winter season it may be flooded to provide a skating rink. It will thus be in use nearly all the year round.

The garden in which this court is located is an ideal spot, being entirely closed in from the street and having open spaces on the two sides near the cemetery, from which it is separated by a rather high stone wall with vaulted top. Along this wall is a six-foot terrace, leading up to which is a flight of stone steps. There is a fountain and there are walks constructed of irregularly shaped stepping stones and nooks for reading or rest. The whole will be landscaped and will provide an unusually secluded spot where recreation of all kinds may be enjoyed without the embarrassment of being watched by passers-by. It must be admitted that this is quite an accomplish-

ment in view of our thickly populated locality. The fine architectural arrangement of the building, plus the proximity of the cemetery, makes this possible, the latter being, in this instance at least, a decided asset.

Nurses' Dining Room Is in Hospital

It is generally conceded that a school of nursing, to be ideal, should have all the nurses' interests under one roof, except those of her actual working hours. This, of course, would include the dining room. We agree with this except where conditions obviously contra-indicate such a plan. This is the case with us. Our new home will not include a dining room for several reasons. We believe that food should all be in one place if it is at all possible, that is, as far as its storage, preparation and cooking are concerned. It would be almost impossible for us adequately to handle this serving of food in the home, using the hospital kitchen for its preparation, because the distance of transportation would be at least two city blocks. We do not feel that we can consider the expense of installing and maintaining another complete culinary department in this new building. Further, we will in all probability enlarge the hospital in the future. Our study has demonstrated to us that, owing to the topography of our present buildings, a new pavilion will of necessity include another kitchen, and we did not want to face the problem of having to manage three dietary departments. Our nurses' dining room, therefore, remains in the hospital.

We have, however, provided on the ground floor directly under the students' living room, an attractive tea room for social affairs. This will be about thirty-two feet square, and will seat approximately eighty persons. It will have an adjoining kitchen, 20 by 18 feet, thoroughly equipped for serving lunches or dinners to large or small groups. We also plan to have the students use this kitchen for any between-meal lunches they may have, and we are providing a convenient locker room having refrigerator compartments, 12 by 16 inches, where boxes from home may be preserved with safety. In this way we hope to prevent the students from carrying food to their rooms.

Off the tea room, and under the sun porch above, there is a paved loggia which opens out to the garden. In warm weather all this space may be utilized for social affairs and a garden lunch could be easily served.

On each of the two floors designed for graduate nurses will be a kitchenette, where a late breakfast may be prepared on the days off duty. There are not so many rooms on these floors, so there will be space in the kitchenettes for individual food properties.

The twelfth floor lounge is also provided with a serving kitchen, as already mentioned, and likewise the auditorium, although the latter will take care of only light refreshments.

For the convenience of the nurses, we have included a chapel on the upper floor of the two-story structure. It will seat about 300 persons, and will be complete in every detail.

The executive work of the school will be taken care of in offices on the first floor to the left of the entrance lobby. (It will be recalled that the reception rooms are on the right.) There will be a general office with information desk, telephone switchboard, nurses' registry, locked individual mail boxes, nurses' call system and parcel desk. This room measures 24 by 14 feet, and connects with the office of the superintendent of the school. Adjoining the latter is a room for the secretary. Opening off this is the office of the assistant superintendent. At the end of the corridor is a small reception room as well as two guest rooms.

The ground floor, which opens on the garden, has in addition to the bowling alley and tea room a section for the special duty nurses. There are dressing booths, lockers, lavatories and dressing tables, showers and a lounge—all for the use of these nurses when they are coming in or going off duty. No special reception rooms were planned for this group, since it was felt that they are out of the school proper. They are, nevertheless, an important part of the hospital family and have a definite influence on the students and on the school. Therefore we shall give them such privileges as will help them physically, socially or culturally.

The laundry distribution room, the linen and stationery storage rooms, a sewing room for the nurses, lavatories for male and female help and large trunk rooms will take up the remainder of the ground floor space.

How Nurses' Call Systems Operate

The nurses' call system will be the usual buzzer type in each room, with a return signal indicating that the call has been heard. This, of course, reaches only the nurse in her room. Since there are other places where she may legitimately be when off duty in the home, we are having installed megaphones to the living rooms, the tea room, the gymnasium, the swimming pool and the garden, so that visitors and telephone calls may have as prompt attention as is possible.

There will be a system of air clocks in the corridors, offices and classrooms, all controlled by a master clock. There will also be a central radio

installation with loud speakers in the various recreational places and in each of the small living rooms on the sleeping floors.

We are attempting to build this school on a modern plan, and are providing some seeming luxuries, such as the radio, with the thought that, before long, they will be actual necessities. To introduce the radio later on would involve a much greater outlay of money than is necessary at present, and we believe we can make use of it to considerable advantage in our educational program.

This building has been in the process of planning for a number of years, which means that we have had to change our original thought materially. We are fully cognizant that as time goes on other new ideas will be promoted, and we have no Utopian dream of reaching a perfect goal. We do know, however, that it will meet our needs adequately for the time being and we hope that the opportunities presented to our students will enable them to attain their ambition with greater ease and comfort and that they in turn will contribute a quality of service of the finest spiritual and mental tone, a service that shows the highest type of professional skill.

Fitting the Nursing School to the General Hospital Scheme

By CARL A. ERIKSON
Schmidt, Garden & Erikson, Architects, Chicago

ATOP one of Pittsburgh's hills, for which the city is famous, stands St. Francis Hospital. The hospital buildings occupy almost an entire block west of Forty-Fifth Street. Its laboratory is on the east side of Forty-Fifth Street and is connected to the hospital by a tunnel.

South of this building is the site selected for the nurses' home. It is a right angled triangle with the apexes sheered off. The right angle is formed by the intersection of Forty-Fifth Street, an important artery, and Calvin Street, a street that "dead ends" at the east lot line. The frontage on Forty-Fifth Street is 210 feet and that on Calvin Street is 180 feet. The total area of the lot is 35,000 square feet. The north boundary is the hospital laboratory. On the east boundary is St. Mary's cemetery.

The program outlined called for a school of the most modern type. In some respects it was unusual. A chapel was deemed necessary because of the overcrowding in the hospital chapel. It was early decided that the large area necessary for the gymnasium be expanded slightly to permit its use for an assembly hall, not only for nurses, but for large clinical conferences, public health meetings and similar activities. Likewise it was determined that the swimming pool should be available under suitable restrictions to interns and possibly to others. The need for relief of the overcrowded conditions in the hospital emphasized the original program requirement that the offices of the training school and the special duty nurses' locker and rest rooms be placed in this building.

The site available makes possible many different arrangements of the building to meet the requirements of the program. After much study of the arrangements a plan was adopted according to which the building is now being constructed. It places low buildings opposite the hospital across the none too wide Forty-Fifth Street, ensuring light and air to the wards of the hospital. It provides ample open air recreational space for tennis courts, skating and open air dancing in a court so arranged that any noise cannot disturb the patients across the street. Likewise, it places the student nurses' recreational rooms at a point remote from the hospital so that on summer evenings the radio, the phonograph and the chatter of the students may continue undisturbed by the protest of a patient whose sleep might be interrupted. The gymnasium assembly hall has separate entrances on Forty-Fifth Street and is so arranged that it may be used entirely independent of the nurses' school, or as a part of it.

The main mass of building rises from eight to twelve stories high, facing south on Calvin Street. Adjoining it is the two-story educational building connecting it in turn to the two-story gymnasium-assembly hall wing.

The desirable segregation of the sleeping quarters is marked, beginning at the third floor and continuing through the eleventh. The twelfth floor crowns the entire structure with a private and informal lounge.

From the second floor down the building is in varying degrees open to the public. Entrances

are so arranged that they are readily supervised from the main office adjacent to the entrance on Calvin Street.

In determining the details of the interior, the guiding principle has been economy of maintenance. In the main, floors and base will be of terrazzo. Window stools will be of marble as will toilet and shower stalls. The wood windows are reversible to permit washing from the inside. The faucets in the lavatories are metal, nonbreakable and chromium plated. The traps below are rough brass, painted. The simple plug and chain takes the place of the more troublesome pop-up waste in the private rooms. The single panel room doors are without transoms. They are in steel frames, flush with painted plaster walls.

The best quality of piping was used to avoid maintenance troubles. Copper, brass and wrought iron were used as the need indicated. The piping is concealed. The floors of the gymnasium and its stage are of wood. Those in the storeroom and engine room are of concrete. The pool is tile lined and the floor is of nonslip terrazzo. The chapel, assembly hall, natatorium, classrooms and several other rooms will have acoustical treatment.

There are three elevators. One is primarily a freight elevator intended to raise material and supplies from the communication corridors reaching the entire hospital group—at the sub-basement level in this building. There are two passenger elevators directly opposite the main entrance, both having a speed of 450 feet per minute. One is controlled by an operator. The other is a push button elevator. This one has a "collective" control which adds to the usual features of a push button elevator the convenience of stopping to receive all passengers on its way up or down. Thus it overcomes the annoying features of a push button control elevator.

Interior Is Simple

Modern simplicity rules the interior. The main entrance lobby will be paneled in oak practically unfinished, with a dark terrazzo floor. The reception hall to the right is wainscoted and the dividing partitions of the semiprivate alcoves are of oak. A few steps lead up to the student nurses' lounge with its wood burning fireplace. A low wainscot of oak, plastered walls and a slightly ornamental ceiling will serve as a background for colorful hangings and furniture.

The library is also wainscoted to the ceiling and, of course, every bit of wall space is used for bookcases. At the other end of the first floor, the reception rooms for graduate nurses and their living room are quite similar to the student nurses' lounge in character and appointments.

The chapel on the second floor is somewhat more than two stories high as the ceiling follows the pitch of the roof. It will be oak wainscoted to the ceiling and above that will be sand finished plaster. The walls of the sanctuary will be of plaster and will have small niches for the side statues. A red Verona marble altar, flood lighted from behind the sanctuary arch and topped by a carved panel extending to the ceiling, will be erected in this chapel. Lighting in the chapel will be controlled by dimmers which will permit the volume of light that will be most effective.

Cross Rises 210 Feet Above the Street

The exterior of the building is a direct and modern expression of the plan, strongly reminiscent of older architectural forms. The two-story wings on Forty-Fifth Street buttress the main building, which is a broad "H" in plan. At the ninth floor the stems of the "H" drop back slightly and at the tenth floor disappear entirely. At the twelfth floor the building is set back still farther to form a central motif. The interesting silhouette thus developed is of great importance since the building will be seen for a great distance.

The wall treatment is of local red brick on a Bedford stone base of coarse texture. The ornamental courses above the second floor are either of brick or of terra cotta of the same general tone and color as the brick. The pitched roofs are of gray-green slate, graduated in thickness on the lower ones. A small forecourt, a few steps above Calvin Street, frames the entrance, projecting somewhat beyond the main face of the building. The entrance is two stories high and is of brick, Bedford stone and iron. Directly over the entrance door, rises the statue of the patron saint, flood lighted from its base. On either side are the coat of arms of the Sisters of St. Francis and that of the diocese. An interesting detail used about the main entrance and in many other places is a conventionalized representation of the thrice knotted girdle of the Franciscans.

A large illuminated cross at the twelfth floor is the central motif of the north front by day and a beacon by night. Surmounting all is a flèche of lead topped by the cross rising 210 feet above the pavement. A story or two beneath the illuminated cross are four highly conventionalized heads, clearly Franciscan Sisters by their habit, that look out over the city. Mounted on lofty columns of brick, they are symbolical of the hope, the faith, the charity and the labor that have inspired Franciscans for these 700 years.

Practical Administrative Problems: How the Medical Staff May Make or Unmake the Hospital

By JOSEPH C. DOANE, M.D.
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ARTICLES that have appeared in this department in the past have attempted to describe various administrative aspects of hospital work from a purely economic standpoint. These articles have been prepared with the sole object of presenting money saving methods to hospital administrators. This angle of the institution's work is, of course, of the greatest importance, but it is impossible to discuss the cost of providing proper institutional care without also considering the nature of the service provided.

This sketch will depart somewhat from the policy that has been followed in past issues, to which a return will be made in the future, and will describe various aspects of staff organization and discuss certain matters concerning the functioning of this important division of the hospital's personnel. In a former article, the methods of staff appointment and the length of service of its individuals or groups were discussed in detail. In this sketch, particular attention will be called to some relationships between the activities of the staff and those of persons more intimately concerned with the administration of the hospital.

A well organized, ethical and skilled visiting staff represents the backbone of the hospital's work. Yet, it is still a common event for dangerous misunderstandings to arise between the hospital administrator and the staff as a whole or between its individual members. Indeed, difficulties of this variety have in some instances assumed such proportions that it has become necessary for resignations to be requested to avoid harmful friction.

Physicians Are Often Critical

Notwithstanding the fact that many physicians have become successful administrators of hospitals, the great majority of medically trained men have little if any real insight into the difficulties confronting the hospital executive. It is the exception for a practicing physician to understand and to possess the basic qualities necessary to conduct a hospital tactfully and efficiently. Because the physician does not appreciate the fact that hospital administration is a profession in itself and because he has an intense but honest desire to secure all those facilities he considers essential for the care of the patient, he frequently assumes the unfortunate attitude of becoming a destructive critic of the methods adopted by the board of trustees and the administrator.

How Difficulties Arise

This attitude, perhaps, can be more easily understood when it is remembered that the average doctor, possessing no administrative experience, is brought so intimately in contact with the results of the executive activities of the hospital superintendent that he is naturally confused, both as to the causes for such difficulties and as to the nature and efficiency of the remedies suggested for them. As this friction develops, the physician is inclined to assume a more and more antagonistic attitude to the hospital management, believing honestly that he and his fellows possess knowledge that could easily remedy all such apparently serious, yet, to him, simple defects. In reality, the board of trustees and the superintendent more often fully understand the nature of such problems and the solution for them but they are confronted by the embarrassing truth that the money necessary is not available.

It is the experience throughout the institutional field that, with few exceptions, hospital boards composed of physicians do not function as efficiently or as smoothly as do those composed of lay business men and women. Indeed, it has become almost an axiom in hospital administration that a member of the visiting staff should not at the same time hold a place on the board of trustees. Physicians, unfortunately, in their zeal to improve the care of the patient are inclined to make light of financial limitations. Surely, they argue, there must be money procurable from some source if it can be proved that it will serve the best interests of the patients particularly and of science generally. They fail to realize that each patient treated in the wards of general hospitals daily increases the deficit of the institution and that no hospital worthy of the name, except in exceptional cases, is able to earn sufficient funds to meet its routine and necessary expenses. Phy-

sicians too frequently are not content to perform medical work alone, preferring to have some hand in the engaging of hospital personnel, the setting of rates and the suggesting of sources from which the hospital should buy its supplies.

To maintain a high degree of loyalty to each institution on the part of the visiting staff, multiplicity of appointments must be avoided. Here and there throughout the hospital field are observed physicians who are holding half a dozen or more appointments in as many different hospitals. In such instances, some of the institutions must suffer. Such a division of interests brings about a condition in which the physician cannot be properly loyal to any single hospital.

The Dangers of Cliques

Another disastrous state of affairs is the existence of cliques and political alignments in the hospital staff. No physician is more dangerous to the welfare of an institution than he who attempts, by fair means or foul, to gain a position from which he may dominate the policies, both medical and economic, of the hospital. An annual election to the hospital staff is one way to discourage the assumption of too great power by any one individual. The institution whose board of officers is self-perpetuating and the members of whose staff serve from year to year without reelection is the one that is most likely to develop symptoms of stagnation, which endanger the best interests of the patient.

The formation of a hospital association that consists of all those who contribute more than a fixed minimum amount to the maintenance of the institution and who annually elect certain members of the board of trustees, has been held by some to be a desirable and democratic institutional practice. Yet many dangers are inherent in such a plan. The members of the board of trustees, while not rightfully self-perpetuating, should at least be granted a sufficient tenure of office so that changes in policy, which would be likely too frequently to ensue if this were not the case, will be reduced to a minimum. Certainly, the visiting staff should be reorganized annually and the tenure of office of the president and of the chairman of its executive committee should be limited. The various committees of the staff should also be reappointed annually. Moreover, the desirability of such positions should be increased by emphasizing the fact that election to them is an honor.

It is often difficult properly to control courtesy staffs. Recognized hospital administrators have made statements to the effect that no institution with a closed staff can assume its rightful place in the community and that no hospital, purporting as it does, to represent a public utility, can properly function without permitting all local, qualified physicians to practice within its walls. Yet, it is evident that definite and well considered restrictions must be placed upon physicians permitted intramural privileges. That such courtesy physicians should be required to demonstrate their skill to a staff committee seems wise.

Many hospitals avoid the dangers incident to the presence of an open staff, by possessing a regularly appointed group to which has been added a greater or lesser number of courtesy members. The former can most effectively serve as a nucleus around which a proper medical organization can be built. In this way the board of trustees and the superintendent possess an organized group to which they may go for advice and upon which they may depend for the initiation and support of correct ethical and scientific standards.

Even in the presence of such an organization, one of the dangerous questions upon which the staff and the executive personnel have disagreed has been that of the right assignment of patients. In most institutions there is a receiving or admitting ward into which all ward patients are routinely conducted upon their arrival at the hospital. Here clothing is listed, baths are given, examinations are performed and assignments to hospital divisions are made. Frequently the patient has been examined in his home by a staff physician before coming to the hospital. When this has been the case, he is most likely to present a letter upon his arrival at the hospital in which this physician requests his admission to the hospital and sets down the provisional diagnosis of the case. Should the hospital always make its assignment upon the strength of this diagnosis, or has the receiving ward physician a right to assign this patient to the department he believes most suitable, irrespective of the physician's request?

The Assignment of Patients

It would be folly indeed for the hospital to permit as many admitting physicians to function as there are doctors on its staff. The location of the patient within the hospital is certainly an institutional matter, and the medical personnel of the receiving ward should be sufficiently skilled to make suitable assignments of patients applying for treatment, aided as they are by instruments of precision that have not been at hand in the physician's office or in the patient's own home. Surgeons frequently send patients to the hospital for gastro-intestinal or other time consuming

studies and desire them to be admitted to their own service or to that of a colleague. It is doubtful, indeed, whether patients requiring such study should be allowed to occupy surgical beds while this investigation is being carried on, since their presence in the hospital prevents the admission of other more acutely ill patients. Such patients, it seems, should certainly be assigned to the physician for study and the surgeon should be called in as a consultant. If, later, it is the opinion of the medical chief and his surgical consultant that surgery is indicated, a transfer can easily be made. The authority of the hospital, therefore, should certainly extend to the preparation and enforcement of assignment rules governing the type of case admitted to each of its divisions.

What Patients Should Be Excluded?

Staff physicians do not always realize that when they are off duty it is a matter of courtesy only for their colleagues to permit them to study and treat patients on a ward service. To be sure, such an understanding usually exists but, in some instances, flagrant abuse of this privilege is observed. Professional generosity should permit the reference of patients, insofar as possible, to the colleague on duty.

Another difficulty that sometimes produces misunderstanding between hospital authorities and members of the visiting staff, relates to the type of patient who should be excluded from the general hospital. It is perfectly natural for a physician to wish to secure the admission of disturbing and difficult patients to the hospital, since he is convinced that they will receive better care than at home, and since he knows that his responsibility ceases when the patient has crossed the threshold of the hospital. General hospitals must be on the alert continually to prevent the admission of such patients as the epileptic, the noisy, the senile and the incontinent, those with venereal disease in an infectious state or those with chronic ailments for which little can be done medically and for whom only shelter and food can be provided. When such cases are admitted or similar conditions develop within the hospital, it should be a distinct responsibility of the physician who referred the patient to provide for his removal.

Yet, frequently the administrator is confronted by an attitude of helplessness on the part of the physician and an equally resistant or impotent attitude on the part of relatives. The hospital certainly has a right to refuse the admission of patients who, for any reason, might serve as deterring influences to the recovery of others under treatment. The medical director or other resident administrator should scrutinize each patient of doubtful nature in order to prevent improper admissions, since it is a well known fact that to remove such patients later is more difficult than to prevent their admission. Not only has the institution a right to refuse to admit certain types of ward cases, it should just as frankly refuse to admit private patients with infectious diseases or with allied conditions. Physicians have no right to interfere with the rate card of the institution, nor should any attitude of disloyalty or lack of support on their part be countenanced. They should be informed, however, concerning the cost of hospital care that they may instruct patients as to the nature and the magnitude of the financial obligation they are likely to encounter.

Not a few hospital administrators have had considerable difficulty in controlling the intramural practice of members of the visiting staff. For example, should a staff surgeon be permitted to treat medical cases on ward or semiprivate services? May an obstetrician remove tonsils? Should the physician be permitted to perform circumcisions? Is there any limitation that should be placed upon the type of patient whose admission is requested by young physicians who are assistant surgeons in the hospital, but who practice general medicine in the community?

Departmentalizing the Staff

In hospitals of size, the staff should be so definitely departmentalized that no surgeon will feel inclined to depart from his specialty and treat, say, a case of pneumonia. Obstetricians should scorn tonsillectomies. Laryngologists should refuse to deliver patients in the maternity department. Definite rules, therefore, must be laid down by the board of trustees governing the nature of intrahospital staff practice. Attempts must be made definitely to describe the type of patients assigned to each hospital division, these rules serving as a guide for the admitting medical officer. A physician's prominence in social or medical circles, his wealth or that of his clientele, his qualities of aggressiveness, his strength of will, his professional skill—none of these should be considered of sufficient importance to permit the practice of favoritism. A chief surgeon in the hospital should practice surgery, the physician, medicine.

A more difficult problem even than the standardization of hospital practice is that which concerns itself with the development of specialties within each group. It is advisable, for example, for the individual members of the surgical staff to agree to treat only patients of certain types and to turn over to their colleagues patients suf-

fering with diseases representative of other class subspecialties. The medical and surgical treatment of Graves' disease, for example, clearly represents the need for group intrahospital practice. The creation of a fracture service is but another example of the recognition of such a need. Yet when it is proposed that a general surgeon relinquish his thyroid cases to a colleague or that all fractures be assigned to an individual surgeon, one is confronted with objections that are not easy to overcome. It does seem reasonable, however, to suppose that such a development of specialty work cannot be brought about without either a loss in personal reputation or in income. In hospitals of medium size, it is almost impossible for the proper contribution to medical literature to be made by staff members unless sufficient cases can be studied throughout the year to represent a fair medical or surgical experience along special lines.

Too Many Specialists?

It may be said that the staff of the general hospital almost routinely consists of the following groups: physicians, general surgeons, orthopedic surgeons, laryngologists, gastro-enterologists, gynecologists and, occasionally, oral surgeons and cardiologists. X-ray and other ranking specialities are also usually included as major staff divisions. Generally, the following staff divisions appear under a varying nomenclature: emeritus physicians, consultant physicians, senior attending, junior attending and dispensary physicians of various grades. To physicians are assigned all patients suffering with conditions not remediable by surgery or similar or allied treatment. When a staff has been departmentalized beyond the point of possessing general subdivisions, one frequently finds that all infections, abnormalities and chronic conditions of the cardiovascular system, for example, are assigned to a cardiologist. Diseases of the gastro-intestinal tract are assigned to the gastro-enterologist and, frequently, diseases of the blood stream to the hematologist.

It can easily be seen that specialization, even in the hospital, may be carried to too great a degree and that too many specialists may represent a hindrance rather than a help to the speedy recovery of the patient. To general surgeons, in most instances, are assigned all patients suffering with conditions that may be remedied by the use of the scalpel, corrective braces or splints. Surgery itself, however, has been made the subject of much specialization. The orthopedist frequently cares for diseases of bones and joints. The oral surgeon cares for conditions of the mouth and sinuses, the laryngologist, those of the nose and throat; the otologist, those of the ear; the proctologist, those of the rectum. It may easily be seen that the field of the general surgeon is gradually becoming more circumscribed.

It is a matter of doubtful wisdom for a board of trustees to listen too seriously to the claims of those who desire that another surgical specialty be placed upon the hospital staff lists. Too often the criteria delineating the type of cases to be assigned to certain of these groups are most indistinct. The oral surgeon, for example, expects to operate on patients suffering with cleft palate, diseases of the larynx and of mouth tissues and of the maxillary bone, while the dental surgeon may only attend to diseased teeth and abnormal conditions of the mandible but a few centimeters away. The brain surgeon is expected to treat tumors and other chronic processes within the skull cavity, while the general surgeon is loath to relinquish fractures of the skull. Should tonsils become diseased and require enucleation, the laryngologist is permitted to pass through the realm of the oral surgeon in order to perform his work. The abdominal cavity has become the battleground for division by specialists. The gastric and intestinal surgeon expects to treat surgical ulcers of the mucosa of the stomach, while diseases of the lower extremity of the intestinal tube are assigned to the proctologist.

Curtailing the Number of Specialists

Indeed, it would seem that the time has come for the board of trustees of the hospital to call a halt on the unlimited addition of specialists to the hospital staff. To be sure, in institutions whose beds exceed 500, there may be a sufficient number of patients suffering with varied types of surgical diseases to make possible the assignment of a reasonable and profitable number to each specialist for treatment. The foregoing remarks, however, refer largely to hospitals of from 200 to 400 beds in which, too often, in certain services there are as many physicians as there are patients. To the orthopedist is usually assigned infections, malformations and tumors of the bony structures; frequently, however, he is not permitted to treat fractures. A break in the continuity of the bone denominates this condition as belonging to the general surgeon, whereas a malignancy or tuberculosis of the same bone, which has not destroyed its continuity, determines that it remain in the care of the orthopedic surgeon. It is something of a question dependent in a large measure, however, upon the skill of the surgeon or of the orthopedist.

As has been intimated, the division of general surgery and medicine into specialties has reached

a point where the physician and the surgeon find themselves almost without patients because of the activities of young, enthusiastic and, at the same time, less experienced physicians who announce themselves as specialists. The attitude of the board of trustees of the hospital should be toward the creation of strong medical, surgical, obstetrical and pathological departments.

The Hospital Staff Organization

Placed at the head of each one of these divisions, should be a physician who is denominated as chief of staff or who has some other appropriate title. This physician should serve, in a measure, as the medical administrative officer of his group. Placed in subordinate positions, governed by the nature of their work, should be the so-called class specialists, to provide a completeness, an intensity, to the studies in their particular divisions. It would seem that the patient, certainly one suffering with cardiac or intestinal diseases or malignancies, should be referred to the visiting medical chief before he is assigned to associate specialists for further study. All such group investigation should be correlated by representatives of the regularly appointed medical staff. Such an organization may be equally applicable to the surgical department, and while orthopedic, oral and laryngologic surgery need not be subordinated in an embarrassing way, yet a centralization of surgical organization is certainly likely to prove most efficient.

There are other physicians in the hospital staff organization who may serve purely as consultants. These physicians are without service, but they should be attached perhaps to the medical group and should receive the title of "associate" or "assistant physician."

There are several avenues through which staff positions may be secured. To proclaim oneself a specialist and to endeavor to secure admission to a hospital group because of this fact has been rather popular of late years. Sufficient has been said to show the disorganization that results from a heterogeneous collection of so-called specialists. The study of diseases of the human body must not represent an inquiry into the nature and treatment of local conditions without associating the part with the whole. A strong staff organization in which adequate specialty information is quickly and efficiently available, tends to such a correlation of study. The physician and the surgeon, with few exceptions, must be placed fully in charge of the care of the patient. They must be of sufficiently wide understanding of the possibilities of specialism that they will willingly call for advice from others in their group. When such an organization exists, staff conferences are more likely to flourish and staff morale to remain high.

Practically speaking, a committee of the board of trustees, perhaps with the advice of the chief of staff, should carefully study the staff organization of the hospital, with the idea of eliminating lost motion, of preventing personal friction and of subordinating the aggressive desires of the self-proclaimed specialist to the good of the individual patient. It should be the duty of the chief of each staff to discourage attempts at self-aggrandizement and to recommend for staff places only those persons who have a definite contribution to make. On the other hand, it may be said that physicians who are granted places of prominence, for example, a staff chiefship, should be impressed with the fact that the superintendent of the hospital has in no way relinquished his executive prerogatives by encouraging and recognizing such staff organization and position.

It should be understood that the chief of staff is permitted only to carry out medical administrative functions and that any interference with the executive side of the hospital work is unwelcome. To avoid intra-staff friction definite regulations relative to assignments of patients must be made, and the physician must be impressed with the fact that his place on the hospital staff does not grant him prerogatives usually and rightfully assigned to the board of trustees and to the superintendent. The hospital is the physician's workshop. The physician is permitted to labor therein only so long as he respects the authority of the board of trustees and endeavors to fit himself into what should be a frictionless institutional machinery.

Making the Nursing Profession "Air Minded"

Now, even the nursing profession is going "air minded." According to the *American Journal of Nursing*, the registered Nurses' Aviation Corporation of the Civil Air Corps, recently organized, has announced its purpose to be: the promotion and preparation of adequate nursing facilities at air ports; the promotion of air mindedness in the nursing profession when action in emergencies is necessary; familiarizing nurses, through flying experience and instruction, with flying conditions so that in emergencies where flying is necessary they are prepared to undertake the work; the development of pilots among the profession.

The introductory fee is $25 and the yearly dues $6. The fees entitle members to twenty lessons in nomenclature. Lessons in actual flying are given at cost, $18 an hour. Physical examinations are not required of members unless they take actual flying lessons. The president of the association is Mrs. Laura B. Richter and the headquarters are the Palmer House, Chicago.

Editorials

Using "Movies" to Instruct Nurses

HOSPITALS may well take a lesson from schools and colleges when it comes to the use of visual education. It must be admitted that in the teaching of nursing, the training of interns and in several other ways hospitals have been unprogressive in not having adopted more eagerly motion and talking pictures. Motion pictures have been introduced into schools and are now accepted as an integral part of the curriculum. They are used also for entertainment and it is difficult to find a school where there are not one or more projection machines in daily use.

What has been done and what is being done with the motion picture camera in schools can as well be done by hospitals. Let us review the possibilities of the motion picture in hospitals.

With the best type of nurse educators behind the movement, an entire curriculum of nurse training could be screened, to supplement the present day instruction. It would form the basis for a real standardization of nurse training and would take into the smallest training schools in remote communities the teachings of our foremost nurses. It would be the boldest stroke for a uniformity of training schools that could be taken and the most constructive move that could be made by this great body of educators. The expense would be slight and could be underwritten by some foundation with the understanding that the sale or rental of the films made would go toward the repayment of the funds advanced and that further profits would go toward better nursing education throughout the United States and Canada.

The secondary use of motion pictures would be as entertainment features for both patients and personnel and the present day motion picture camera and projector can be easily operated in almost any reasonable space.

The third use of films would be in public relations and more particularly in fund raising for both new buildings and the operation of the hospital. If we could show to the general public the exact conditions as they exist in hospitals, where improvements are needed, the type of work that is being done and all of the intimate facts relating to hospital and hospital organization, the raising of money would be greatly simplified.

The fourth use of the motion picture film is for scientific recording. There is already on the market a particularly apt instrument for use in operating rooms where the camera focuses with the portable light on the seat of the operation and thus can accurately record the technique of operating procedures.

The use of motion pictures in the hospital is on the way and progressive administrators will embrace the opportunities presented by their installation.

The Regulation of Nurses

FOR a good many years the nursing profession of America has endeavored with laudable zeal to raise its standards—to require that those who enter the profession of nursing shall be possessed of adequate basic education, good morals and good physical stamina. It has endeavored to improve the courses of instruction that are given to nurses, to see to it that training schools feed and house potential nurses in a proper manner and to regulate the number of hours that are spent in study, ward work and recreation.

A great many of the states have enacted laws that create state boards of nursing examiners. The composition of these boards varies but as a rule it is required that a certain number of physicians and nurses have seats on the board. Almost never do these laws require that a hospital superintendent or a superintendent of a nurses' training school shall have membership on such boards.

These bodies are empowered by law to make regulations governing nurses' training schools and as a rule there is no appeal from their decisions. This gives them tremendous power, a power that is sometimes but not always exercised wisely. For example, most boards require that nurses shall not be housed under the same roof as the hospital. Sometimes this works a hardship in crowded metropolitan areas where land is expensive and difficult to acquire. Furthermore, this is not always in accordance with modern architectural ideas since it would be absolutely practicable to place the nurses' quarters on the top floor of a tall building, thereby giving access to a roof garden and making arrangements so that this portion of the building would be absolutely separated from the hospital, although under the same roof.

In the matter of qualifications required for entrance to training schools, some curious decisions have also been made. In one instance, a hospital was not permitted to accept a trainee because she

could not produce, on account of the records having been destroyed by fire, the exact grades she received in high school, although she had her high school diploma and a certificate of two years' attendance at college. The regulations of some state boards require that no nurse shall be employed on ward work in the morning because this portion of her day must be spent in the classroom. The morning is the time when the hospital is the busiest and it is the time when the trainee can acquire most practical training.

The examples quoted above are glaring and perhaps unusual. The fact remains, however, that in many states a hardship is being worked upon hospitals that operate training schools for nurses and that in many instances no good end is being served thereby. The profession of nursing owes it to itself to correct these evils. The profession of hospital medicine should lend every assistance toward this end. As a beginning it might be required that all such boards include a hospital superintendent. The movement that the profession of nursing is engaged upon is a worthy one which should not be hampered by overzeal and misdirected regulation.

A "Health Day" for Every State

THE plan recently initiated by the Hospital Association of New York State providing for an annual health day deserves the commendation and support of all those to whom health welfare is of more than passing interest.

Briefly, the association is working toward a plan whereby the individual states will cooperate in naming an annual "Health Day" which will serve to remind the general population of the importance of conserving and promoting individual and public health. Schools and institutions would be utilized for health examinations and consultations, and the public consciousness focused upon disease prevention.

Here is undoubtedly a step in the direction of progress. Medical science and research have established beyond any doubt the preventability of many ailments. The health of the individual is largely a matter of intelligent care, and any activity pointing to the wider dissemination of health culture, especially on so large a scale as that contemplated, will prove of inestimable value to each state and to the Nation.

There are tremendous possibilities involved in this plan and great public interest will be manifest as soon as the plan is generally known. Yet, it should be pointed out that mere enthusiasm upon the part of a few public spirited men and women will not be sufficient to carry the project to the culmination it rightly merits. If any real degree of success is to be achieved it will come only as a result of active cooperation by those social, business and medical interests which can command a hearing, and bring their influence to bear upon state legislators who have the power to create this "Holiday for Health."

Another Word on X-Ray Profits

IN A recent issue of THE MODERN HOSPITAL it was stated that the x-ray department should routinely represent a financial asset rather than a liability to the hospital. There are those who disagree with this opinion—who believe that the realization of a considerable profit and the performance of the necessary amount of free work for ward and dispensary patients are ends that are not possible of accomplishment at the same time. That methods of doubtful wisdom from a business standpoint are often practiced in the hospital roentgen ray department cannot be disputed.

That staff members for various reasons do not send their office patients to the hospital for x-ray study is also a matter of common knowledge.

THE MODERN HOSPITAL stands immovably on the principle that the hospital must exalt the importance of rendering ample and adequate service to the sick irrespective of whether part, full or no payment is received therefor. Little can it profit an institution to gain a whole world of dollars and yet lose its own ethical soul. Nevertheless, it is the duty of the hospital to diminish deficits. In so doing, however, it must give for each dollar received from the public the fullest possible measure of diagnostic and therapeutic services. Make money on the x-ray department if possible, and it is often possible, supply specialist information of the highest type, install accounting and collection methods that are modern and yet considerate of the economic possibilities of the patient, and the financial returns will ordinarily be in direct proportion to the grade of work performed.

Brains as Well as Bricks

THE call of rural communities for aid in hospitalizing their sick has reached the ears of those holding the strings of Foundation money-bags. Tales of human suffering unalleviated, of preventable death in childbed, of the absence of the comforts and safeguards of proper nursing have come from the farming and village districts of New England—from the South and the West and the North. And lo! millions have poured from the purses of the wealthy to build in these extra-urban places many splendid hos-

pital plants. On the shelves of their operating rooms have been placed the most modern of instruments. None can criticize the arrangement of their rooms and wards. Their mechanical plants are models of completeness. And yet, there is often missing a vital piece of equipment, one that even the generosity of the rich cannot supply. Instruments and operating tables are but inanimate objects of steel, useless to the patient without the galvanizing touch of the surgeon.

Herein lies a real danger to the patient—a serious temptation to the doctor. That the average physician practicing in the country is not qualified to perform major surgery needs no proof. And yet, unless affiliations are made with urban hospitals or some private arrangement is consummated with an experienced surgeon residing at a greater or lesser distance from the new institution, patients' lives must frequently be placed in jeopardy because of improper, unnecessary or unskilled surgical treatment received at the hands of physicians who would not be permitted under any circumstance to operate in a city hospital.

Perhaps a new type of physician must be trained to assume these rural responsibilities. Possibly the transportation of those persons requiring major surgery to near-by centers of population, where the services of a skilled surgeon are available, would be life-saving. The appointment of an able surgeon-superintendent for such an institution might be tried. Whatever the solution, the attention of those who contemplate similar benefactions should be called to the fact that four walls do not make a hospital, nor scalpels and hemostats a surgical clinic.

Brains as well as bricks must be supplied in order to render the rural hospital a safe place for an often too trusting public.

Talking It Over

THE time once was when medicine and dentistry were polar distances apart. Happily, the two professions now realize their interdependence in the prevention and cure of disease. Then, as the movies say, "came the dental intern." Not so many hospitals have dental departments, let alone dental interns. Institutions that have dental interns have found them well worth while. This is an interprofessional relation that should be fostered.

* * *

A FEW cases of psittacosis, a disease of parrots, raises a furor in the daily press. Fifty times the number of cases of measles passes unnoticed. Familiarity has bred lack of interest. Psittacosis, by its rarity, sets the world talking. The disease itself has been known as dangerous to man since 1879. It resembles typhoid fever and causes death by pneumonia. The Paris epidemic of 1892 was caused by a shipment of 500 parrots from Brazil, 300 of which died on the voyage. The remaining 200 were sold to Parisians and forty-nine human cases with sixteen deaths ensued.

* * *

IT ALL goes to show that if man has other animals in his immediate environment, he must protect himself against their diseases. Anthrax and tuberculosis from cattle, tetanus and glanders from horses, Malta fever from goats, dwarf tapeworm and rabies from dogs, trichinosis from hogs, plague from rats and ringworm from cats are just a few examples. External sanitation is the price of hygienic salvation.

* * *

THERE is always a certain danger, though, that sanitation may pass the boundary of sanity and become a fetish, that health may degenerate into hygiene, carried to the point that it is mentally unhygienic. Then is lost the spirit of real health and right living becomes a ritual. This is dangerous because rituals are terribly long-lived. The German who says "Gesundheit" when somebody sneezes doesn't realize that he is carrying out a medieval formula which sensed that pneumonic plague is spread by droplet infection.

* * *

ABOUT 4,000 years ago there lived in Egypt a many-sided man whose name was I-Em-Hetep or Imhotep—"He who cometh in peace." Prime minister, a remarkable architect and designer of the first pyramid, above all, a physician of skill, he made so great an impress on his time that his countrymen finally deified him as the Divinity of Medicine. Many were the temples erected in his honor and many the miraculous cures that took place at his shrines. The shrines of the great physicians of to-day are hospitals and the worship there is that of the restoration and preservation of man's body.

* * *

THE idea that the hospital is the Caaba into which sordid business may not enter is dying. A hospital should not be a profit making institution but it should be gainful in service to the common weal. It need not be thrifty and grasping but it certainly should not be thriftless and prodigal in the expenditure of the public's money. And in the conservation of its resources for good, it never should be parsimonious in its humanity. The kindly touch, the sympathetic ear and the myopic (so far as human foibles are concerned) eye can operate just as successfully under an economic régime and far more genuinely when relieved of budgetary worry. Let's resolve to be thoroughly businesslike in our business.

* * *

ONE more resolve. Let's plan now to go to the annual meeting at New Orleans, our first flight to the extreme South. Aside from professional benefits, great will be the pleasure which that romantic old French-Spanish-American city will afford us. The home of the world's best cooking, a transplanted bit of eighteenth century France, just tinged with the spirit of colonial Spain, a city world famous for its hospitality is ours for the taking. The broad Father of Waters, live oaks festooned with Sanish moss, the land of rice, cane and cotton await us. Already the local committee of arrangements is at work making its proffered hospitality come true; Spanish-America is selecting its delegates and steamships are preparing postconvention voyages to the tropics. Resolved that we will attend the annual meeting of the American Hospital Association at "America's Most Interesting City."

Abstracts of Hospital Literature From Foreign Countries

A Department Conducted by E. M. BLUESTONE, M.D.
Medical Director, Montefiore Hospital, New York City

I. "REPORT ON VOLUNTARY HOSPITALS IN GREAT BRITAIN"

The Tenth Annual Report for the Year 1928 on the voluntary hospitals in Great Britain (excluding London) has just been published by the Central Bureau of Hospital Information under the auspices of the British Hospitals Association and the Joint Council of The Order of St. John and the British Red Cross Society.

R. H. P. Orde, director of the bureau and honorary secretary of the British Hospitals Association, is the author of this interesting report and the foreword was written by Sir Arthur Stanley, who is the president of the British Hospitals Association. The object of this report or survey is to present in detail the position of the provincial voluntary hospitals in Great Britain with reference to certain special features, such as (a) the facilities available for treatment, (b) the extent to which they are utilized, (c) the annual cost of maintaining these facilities and (d) the source and extent of the funds by which they are maintained.

As Sir Arthur Stanley says in the preface, this report, the tenth of its kind, was originally intended as an annual record of the work of the voluntary hospitals along the lines of the report of King Edward's Hospital Fund for London. It has now gone far beyond this and as a "Whitaker" for the hospital world, the present volume deals with such varied subjects as the effect on the hospitals of the Local Government Act of 1929, road traffic accidents, assessments of hospitals for rating purposes, insurance, the payment of hospital staffs, contributory schemes and other matters of vital interest to those engaged in hospital administrative work. It reviews practically all of the voluntary hospital accommodations outside the London area.

The financial survey discloses an excellent position in view of the heavy taxation under which the country is suffering and the continuously increasing demands that are being made upon hospitals by the progress of medical knowledge and the introduction of new and often expensive methods of treatment. The provincial hospitals have not only paid their way; they have ended the year with a larger balance than in any of the previous years during which this report has been published. The editor takes this as convincing proof of the popularity of the voluntary system and of the generosity of the British public.

Copies of this report are available from the office at 19 Berkeley Street, W.1., London, at a cost of one shilling, besides postage.

II. "A TOUR OF BABEL"

Writing under the title "Tour of Babel" an English hospital man, under the pseudonym of Scriba, describes his experiences during the first International Hospital Congress that was held in Atlantic City. For those American readers who took the congress very seriously and would like to know how a humorous Englishman reacted to it and to its American setting, the six articles which have thus far been published in serial form should be more than entertaining. Scriba apparently was one of the delegates who discussed Dr. S. S. Goldwater's paper on "Hospital Planning" but prefers to conceal his name for fear of what Americans will think of his brand of humor, though a reading of his articles reveals no justification for such concealment. The articles began in the August number of the *Hospital Gazette.*

III. "A NEW SPOKESMAN FOR THE HOSPITAL PROFESSION IN ENGLAND"

The January issue of the *Hospital Gazette* in England marks a change in title to *The Hospital* and, according to the editor, "The journal enters upon a wider outlook and a greater sphere of action." The *Hospital Gazette* has been the organ of the Incorporated Association of Hospital Officers for the last twenty-five years. This function it will continue to fulfill and will take on additional functions as the spokesman for the hospital profession in Great Britain.

The Local Government Act of 1929 will soon come into operation and the English hospital will acquire a new significance. It will no longer indicate exclusively those institutions for the sick that are maintained by voluntary contributions, but it will indicate also those hospitals now called "Poor Law Infirmaries," which will shortly be taken over by the local authorities. The number of hospitals will thus be at least quadrupled and incidentally the constituency of the journal increased.

The Incorporated Association of Hospital Officers will undergo a corresponding process of expansion and as an organization it will welcome in its membership all those who are engaged in the professional treatment of the sick. *The Hospital* proposes to act as "guide, philosopher and friend in those practical details that form the bulk of the daily tasks of the hospital worker." It will "aim at bringing together in an arena of friendship and cooperation all those who are concerned in any way with institutions for the sick." The journal proposes to group all questions affecting hospitals under (a) personnel, (b) finance, (c) patients and (d) administration. The old barrier between the voluntary and the public hospital is to be swept away in an effort to secure a common interest in the care of the sick.

The change from the *Hospital Gazette* to *The Hospital*, with all that the editors promise, should be followed with interest on this side of the Atlantic because it marks a new era for the profession of hospital administration in England. The journal is good reading for the administrator who is internationally minded and would like to know what progress is being made in the hospitals of the English speaking world across the seas.

IV. *"DAS LORYSPITAL," Ein neues Krankenhause fuer Chronisch-kranke Inselkorporation, Bern. Reviewed by Ernst P. Boas, M.D., New York City*

This pamphlet is a description of a new hospital for chronic disease, recently established as a part of the Inselspital in Bern. The latter is a large general hospital, and it is interesting to note that the management found this expansion necessary. There are seventy-two beds arranged in four units, each consisting of two six-bed, two two-bed and two one-bed rooms.

It is expected that one-half of the beds will be occupied by patients with advanced pulmonary tuberculosis. Owing to the close organic connection with the main hospital it has been unnecessary to duplicate diagnostic and therapeutic equipment, such as laboratories, x-ray apparatus and operating rooms. Extensive balconies are provided for the patients. Each bed is equipped with a lamp, a call bell and an outlet for a radio.

Included in the report are the specifications for the architects, a discussion of some of the architectural problems, as well as of the important administrative and medical features. Many excellent illustrations conclude this pamphlet which will prove of great value and interest to all who may be planning the construction of a hospital unit for patients suffering from chronic diseases.

V. *"HANDBOOKS ON HOSPITAL ADMINISTRATION"*

A series of handbooks on hospital administration, published in seven sections by Prof. Adolf Gottstein, editor of *Zeitschrift für das gesamte Krankenhauswesen*, have been announced. Sections 1, 2, 4, 5, 6 and 7 are off the press and Section 3 is promised for early publication. These sections are the following: (1) Hospital Construction, 244 illustrations, 344 pages; (2) Special Hospitals, 73 illustrations, 266 pages; (3) Special Installation and Equipment in Hospitals, 40 illustrations, 350 pages; (4) Administration and Personnel, 191 pages; (5) Hospital Technique, 280 pages; (6) Nutrition and Dietetics, 145 pages; (7) Legislation Affecting Hospitals, 293 pages.

These handbooks are published in German and are available, bound or unbound, through the firm of Julius Springer, Berlin.

The editor, Professor Gottstein, explains in the introduction that the publication of these handbooks was stimulated by the rapid development of the German hospital field after the war. The field of hospital administration in Germany, as in England, has aroused interest, and considerable development is taking place in an effort to face the problem in a coordinated and scientific manner.

These handbooks are described as being of a purely practical nature and give no extended space to the history, literature or theoretical development of problems affecting hospitals. They are intended for the use of hospital administrators, architects and technicians in the practical daily problems that confront them. Details concerning the contents of these handbooks are available on application to the editorial office of the *Archives für das gesamte Krankenhauswesen*, Linkstrasse 23, Berlin, W.9, Germany.

VI. "THE HOSPITALS IN AMSTERDAM," J. L. C. Wortman, M.D., Hilversum

Continuing his series of descriptions in *Het Ziekenhuiswesen,* Doctor Wortman gives the main facts about the Deaconess hospitals in Amsterdam, one of them being the foundation of the Netherlands Reformed Sect, the other being the foundation of the Lutheran parish. Both of these hospitals are along the Vondelpark and face each other. The first of these is by far the better equipped of the hospitals and also enjoys a more favorable exposure to the south. They are about the same age and have accommodations jointly for 200 patients. Compared to the other Deaconess hospitals in the country, this is a small number. Much larger hospitals of this type have been built in the provincial towns.

VII. "THE EDUCATION OF NURSES IN AMERICA," Heleen A. Melk, Instructor of Nurses, The Hague

Miss Melk points out the differences between the nursing educational program in America and in Holland, as well as other countries on the continent of Europe. In America the school for nursing and the hospital seem to have separate organizations following the original plan of Florence Nightingale. In Holland practical nursing and the school are one, which, in the opinion of the author, results in an academic education that is generally inferior to the American. Considerable space is given to the American curriculum and especially to the working scheme of the Massachusetts General Hospital, Boston. It is interesting to note that Miss Melk insists on a reform of the educational program in Holland along American lines.

VIII. "WHAT IS A HOSPITAL?" J. L. Hekman, M.D., Superintendent, Municipal Hospital, Bergweg, Rotterdam

This is an address Doctor Hekman delivered at the convention of the Dutch Medical Association, when the hospital accommodations in the country and its colonies were discussed. The speaker gave the elementary requirements for hospital construction, administration and organization. He pleaded for medical advice in the planning of hospitals. He said that attention should be given to a study of the need for a hospital, and if it is to be built, to a careful choice of the best location from the standpoint of the community. Doctor Hekman urged the Dutch Medical Association to take the lead in the hospital program and to appoint a commission to investigate the problem.

Great Increase in Hospitalization Noted in Canada

Hospitalization in every province in Canada has increased tremendously in the decade since the war, according to Dr. Harvey Agnew, department of hospital service, Canadian Medical Association, who emphasized this fact in a paper, "Observations on the Trend of Hospital Development in Canada," read at the joint annual meeting of the Manitoba Hospitals Association and the Manitoba Association of Registered Nurses.

Canada now has 886 hospitals with more than 74,000 beds. Of these hospitals, nearly 500 are public general hospitals and the others are sanatoriums or isolation, mental, war veterans or private hospitals. These hospitals have an approximate valuation of $241,000,000 and an annual maintenance budget of more than $50,000,000.

Not only is there a hospital for practically every district, Doctor Agnew says, but every little town in certain areas has its own small hospital.

The average cost per patient day throughout Canada is $3.45 per patient per day, but a great proportion of the patients do not begin to pay for the cost of their care.

Group nursing has been tried with considerable satisfaction both to the patient and to the nurse in certain hospitals.

The subscriber, or "ticket" system—really a form of hospital insurance—has been so successful in various industrial (and one agricultural) areas in Nova Scotia that its new association is now considering its general adoption throughout the province.

The Part-Time Roentgenologist in the Hospital

For hospitals that cannot afford to hire a full-time roentgenologist, Dr. J. Reafisch, roentgenologist, St. Joseph's Hospital, San Francisco, suggests a plan whereby the roentgenologist spends a part of each day in the hospital supervising the department and doing diagnostic work and the rest of each day working in his own private laboratory. When not on duty at the institution he is expected to be on call for emergency work.

The following financial arrangement is suggested by Doctor Reafisch: Fifty per cent of the net income should go to the roentgenologist for his services and 50 per cent to the hospital. The doctor furnishes his services, his skill, his experience and his training and the hospital supplies the laboratory, the equipment and the technical help.

Net income means that certain deductions have been made from the gross income. These deductions would include both direct and indirect expenses, says the *Western Hospital and Nurses' Review* in commenting on Doctor Reafisch's suggestions. Under this arrangement the problem of expenditure in the x-ray department would not be a matter of controversy between the superintendent and the head of the department. The roentgenologist would be equally interested in the income and the expenses of the department, since anything that would increase the expense of the department would reduce his share of the income.

This arrangement, Doctor Reafisch believes, offers a sound basis upon which to conduct the financial affairs of the x-ray department.

NEWS OF THE MONTH

Chicago Is Scene of Medical and Hospital Meet

PHYSICIANS and surgeons, medical educators and hospital administrators from all over the United States gathered in Chicago, February 17, 18 and 19, for the Annual Congress on Medical Education, Licensure and Hospitals. Participating in the congress were the council on medical education and hospitals of the American Medical Association, the Federation of State Medical Boards and the American Conference on Hospital Service.

The chief subjects for discussion were medical education and hospital administration. One of the principal addresses was given at the opening meeting by Dr. William Gerry Morgan, Washington, D. C., president-elect of the American Medical Association. Doctor Morgan spoke on the relations of federal, state and municipal governments to hospital maintenance. At this session Dr. Morris Fishbein, editor of the *Journal of the American Medical Association,* spoke on "The American Medical Association: Its Function and Future" and his speech aroused keen interest. "The problem with which most hospitals are concerned to-day is how to give adequate care to the sick and at the same time continue to exist from a financial point of view," Doctor Fishbein said. "The council on medical education and hospitals through its publication of lists of approved hospitals for intern training has done more to raise the standards of large hospitals in the United States than any other type of inspection or standardization that has been conducted in this field," he declared. "With the tremendous increase in hospitals, there has come an increasing demand from the medical profession that the council take over the entire question of inspection and standardization of American hospitals." Doctor Fishbein summed up the question of the cost of medical and hospital care and stated that overstandardization might be one of the factors in high hospital costs. He called attention to the committee on intern training of the A. M. A. and its standardization program in the grading of hospitals both for intern training and for ethics and stated that this committee's work was vital and necessary.

Family Doctor Still Needed

Dr. Willard C. Rappleye, director of study, Commission on Medical Education, New Haven, Conn., in his address on "Current Problems in Medical Education," voiced his belief that "the greatest problem before the medical profession is the adequate distribution of modern medical services to the entire population at a reasonable cost." Speaking of the factor of overspecialization, he said that shopping around among specialists is expensive and that frequently it is not the services of an expert that the patient needs. The family doctor still has a tremendously useful rôle to fill, according to Doctor Rappleye. He urged that both hospitals and doctors find their way into the isolated parts of the country where they are so badly needed.

An entire session of the congress was devoted to a discussion of problems arising from the prescription of drugs to hospital patients. Dr. Ernest E. Irons, dean, Rush Medical College, University of Chicago, said that a material saving in the cost of hospital care might be made by using standard drugs instead of proprietary drugs, which are nearly always more expensive yet no more effective. "The shelves in some hospital pharmacies remind one of the exhibits of proprietary medicines in a chain drug-soda-fountain lunch room," Doctor Irons said. The council on pharmacy and chemistry of the A. M. A. insists that coined names of drugs must reflect the composition of the product and that unsupported claims must not be made, he stated.

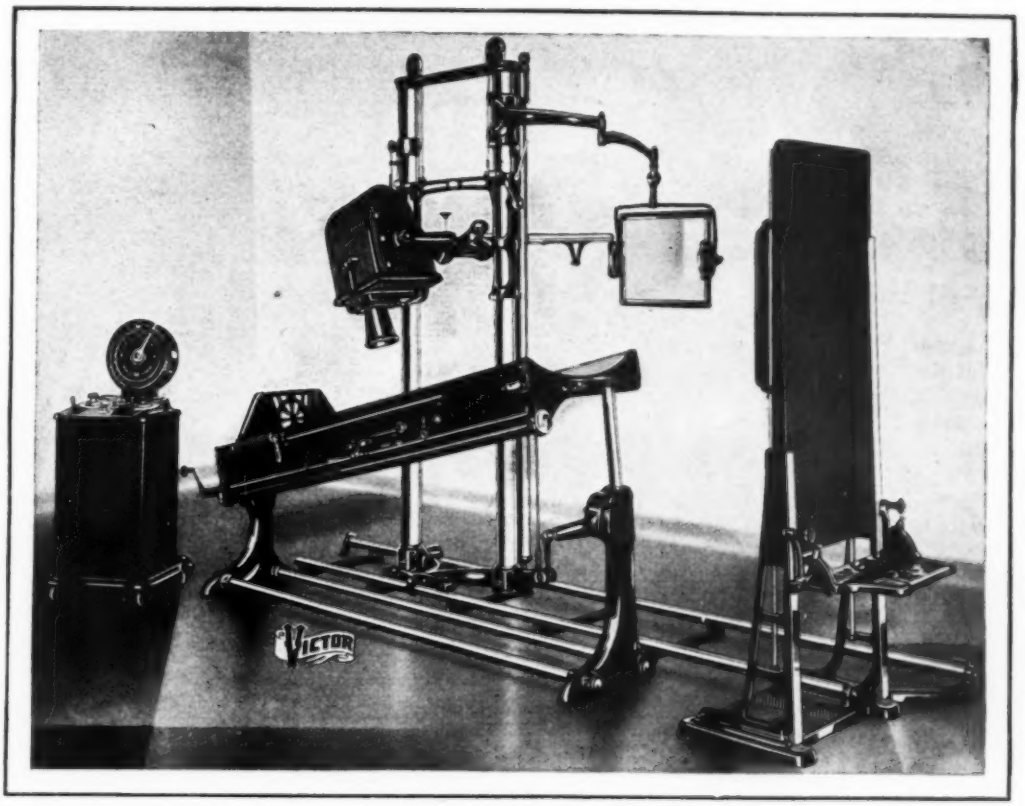
Health Foods Are Not Cure-Alls

The hospital is preeminently the place for critical evaluation of new drugs, because of the concentration of patients at one time and one place and the technical equipment not available in private practice, according to the next speaker, Dr. Torald Sollmann, professor of pharmacology and materia medica and dean, Western Reserve University school of medicine, Cleveland. New remedies that are constantly being introduced offer timely and urgent problems for investigation, Doctor Sollmann pointed out.

Dr. McKim Marriott, professor of pediatrics and dean, Washington University school of medicine, St. Louis, said that to some extent patent medicines had been superseded in popular favor by health foods. Proprietary foods sometimes have value as a change of diet for patients no longer relishing other food, he said, but they are foods and nothing more and the public should be on guard regarding the claims made for them as cure-alls and miracle workers.

William Gray, pharmacist, Presbyterian Hospital, Chicago, showed the physicians how the prescription of many brands of the same drug causes duplication in stock and ties up money that might be used to better advantage.

A symposium on medical teaching plants on Tuesday morning was presided over by Dr. Irving S. Cutter, dean, Northwestern University medical school, Chicago. Excellent talks illustrated by numerous lantern slides were given by Dr. Charles R. Bardeen, dean, University of Wisconsin medical school, Madison, Dr. G. Canby Robinson, director, New York Hospital-Cornell Medical College Association, New York City, and Paul H. Fesler, superintendent, University Hospital, Minneapolis.



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News of the Month

On Tuesday morning and afternoon sessions of especial interest to hospital executives were conducted under the auspices of the American Conference on Hospital Service. Dr. Harry E. Mock, associate professor of surgery, Northwestern University medical school, Chicago, presided over both sessions and in the morning the general theme of discussion at the meeting was hospital and medical costs.

Speaking from the point of view of the hospital, Dr. Bert W. Caldwell, executive secretary, American Hospital Association, said that care of indigent patients throws on the hospital 25 per cent of its operating cost. He believes that this expense should be borne by the state. It is manifestly unfair and economically wrong to add the cost of the care of the poor to the financial burden of the person who pays, he said. The cost of hospital care for the person of moderate means may be reduced, Doctor Caldwell concluded, when more ward and semi-private accommodations at a rate much lower than private rooms are provided; when individuals are educated to use accommodations in keeping with their ability to pay; when they are educated by their physicians to use floor nursing when special nursing is unnecessary; when the average citizen provides in his budget for the day when he or his family will need hospital care.

Dr. James B. Herrick, professor of medicine, Rush Medical College, Chicago, speaking from the viewpoint of the hospital staff, emphasized the need for a perfect understanding between the administration and hospital staff and said that sympathy and consideration must exist on both sides in order to have a perfectly running organization.

Dr. Arthur T. Holbrook, Milwaukee, viewing the subject from the general practitioner's standpoint, proposed that doctors have more variation in their fees; that an adequate part-time nursing system be developed; that there be less unnecessary rushing of patients to hospitals and that unnecessary consultation of specialists be avoided by patients.

If the American family practiced the same thrift in budgeting for medical care that it does to meet other no more certain but perhaps more apparent family needs and applied the same business principles in contracting for medical costs as in buying furniture, a contribution would be made toward solving the problems of paying for medical care, is the opinion of Wilfred S. Reynolds, executive director, Chicago Council of Social Agencies, Chicago, who presented the topic from the layman's point of view.

Needs of Negroes Discussed

Hospital provision for the Negro race was the theme of the entire afternoon session of the American Conference on Hospital Service. Those contributing papers were Dr. Peter M. Murray, New York City, Dr. Basil C. H. Harvey, University of Chicago and Adda Eldredge, director of nursing education, state board of health, Madison, Wis.

Another session of deep interest to hospital leaders was that on hospital administration and staff organization on Wednesday morning, presided over by Dr. Austin A. Hayden, treasurer, American Medical Association. At this time thoughful papers were given by Dr. Walter S. Goodale, superintendent, Buffalo City Hospital, Buffalo, N. Y., E. I. Erickson, superintendent, Augustana Hospital, Chicago, and Dr. W. S. Bertolette, medical chief, Reading Hospital, Reading, Pa.

Hospital departments of radiology were fully discussed on Wednesday afternoon, when the program was as follows: "The Requirements of a Department of Radiology in a Large Teaching Hospital," Dr. James T. Case, professor of roentgenology and radiologist, Passavant Hospital, Chicago; "The Requirements of a Department of Radiology in an Intern Teaching Hospital," Dr. P. F. Butler, Boston City Hospital; "The Requirements of a Department of Radiology in a Small Hospital," Dr. Henry J. Ullmann, Cottage Hospital, Santa Barbara, Calif.; "The Relation of a Hospital Department of Radiology to the Private Radiologist," Dr. L. R. Sante, St. Louis University Hospital Group, St. Louis.

Eminent Speakers on Nursing Program in Chicago

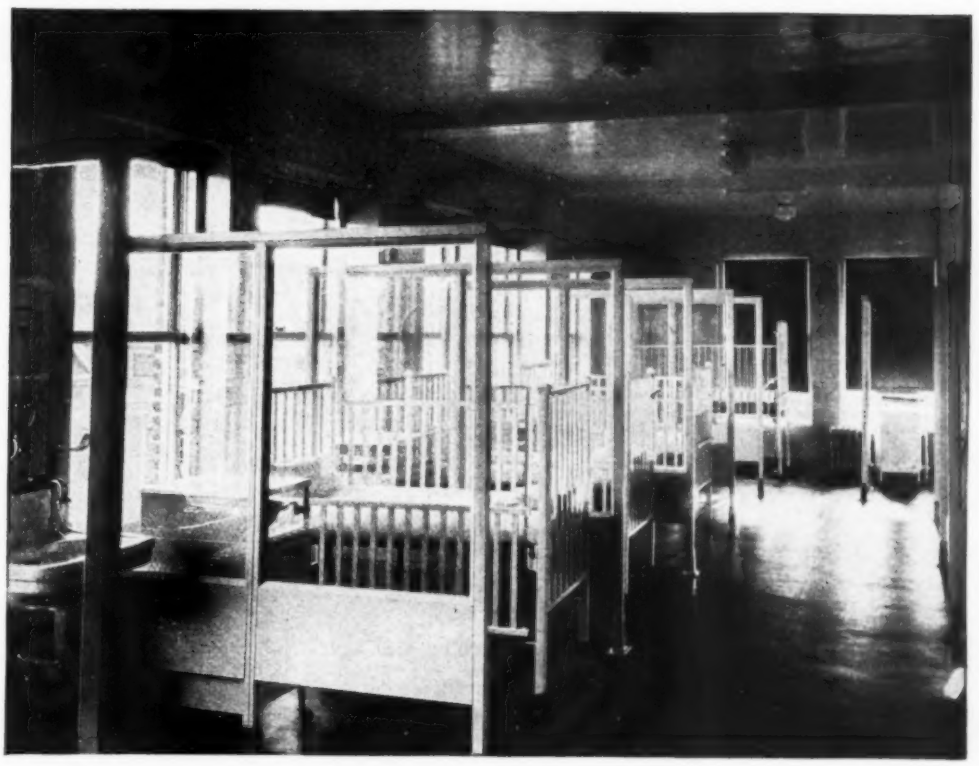
On February 17, the Central Council for Nursing Education, Chicago, arranged an institute for lay boards of hospitals and public health nursing organizations. The meeting was held at the Palmer House and the program fitted in well with the general discussions of the Congress on Medical Education, Licensure and Hospitals being held at the same time and place.

The morning meeting was presided over by Mrs. David Wilson Graham, second vice-chairman of the council and the principal speaker was Dr. Haven Emerson, professor of public health administration, Columbia University, whose subject was "Public Health Nursing—Indispensable and Economical for Everyone if Organized." "The ideal for modern industrial cities is one visiting nurse for every 2,000 persons," Doctor Emerson stated. "Chicago has one for every 6,000 and the city is losing comfort, health and the lives of mothers and babies because of its indifference to the benefits of the visiting nurse system," he declared. Other speakers at this session were Edna L. Foley, superintendent, Visiting Nurse Association of Chicago, and Ruth Emerson, director of medical social service, University Clinics, University of Chicago.

The speaker at the luncheon was Dr. Willard C. Rappleye, director of study, Commission on Medical Education, New Haven, Conn., and Maj. Gen. Merritte W. Ireland, surgeon general of the United States Army, was among the guests of honor.

The afternoon meeting, when Mrs. Ernest E. Irons took the chair, drew crowds to hear Edwin R. Embree, president, Julius Rosenwald Fund, Chicago, and the other speakers on the program, among whom were Dr. Clarence Stone Yoakum, Northwestern University, Evanston, Ill., Paul H. Fesler, superintendent, University Hospital, Minneapolis, and Laura R. Logan, dean, Cook County Hospital school of nursing.

In the evening the council on medical education and hospitals and the Central Council for Nursing Education were hosts at a dinner when Robert Maynard Hutchins, recently elected president of the University of Chicago, was the speaker.



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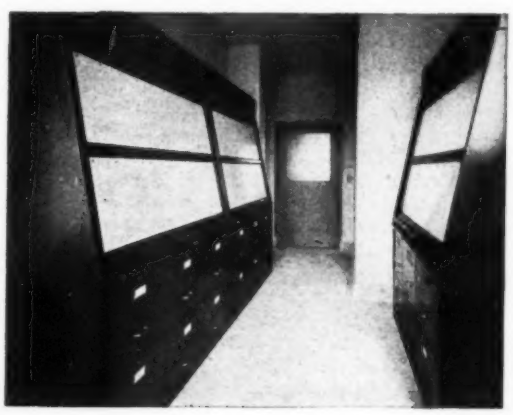

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News of the Month

Tristate Meeting Draws Record Crowd

A RECORD attendance marked the meeting of the Illinois, Wisconsin and Indiana Associations held at the Palmer House, Chicago, February 19, 20 and 21.

Because of the Congress on Medical Education, Licensure and Hospitals and the meeting of other groups held in the Palmer House during the week of February 17, the attendance at the joint state meeting was augmented by hospital administrators from all parts of the United States and the registration was over 300.

On Wednesday morning Indiana held a separate meeting, while Illinois and Wisconsin combined. An excellent delegation was present from the Michigan Hospital Association which attended as guests of the other three associations.

J. W. Meyer, superintendent, Aurora Hospital, Aurora, Ill., president of the Hospital Association of the State of Illinois, presided at the meeting of the Illinois and Wisconsin Associations, and after an invocation by Rev. J. H. Bauernfeind, superintendent, Evangelical Deaconess Hospital, Chicago, a round table was conducted by Dr. Robert C. Buerki, superintendent, State of Wisconsin General Hospital, Madison, Wis. Doctor Buerki proved to be a most effective round table conductor and propounded some extremely practical subjects for discussion. Seldom has a meeting brought forth so many opinions from those present.

At the morning session of the Indiana meeting the program was devoted to the problems of small hospitals. V. I. Sandt, superintendent, Fairview Hospital, La Porte, applied the general principles of organization and management to the administration of a small hospital in an interesting way. Accounting and collection of accounts were discussed by Mary E. Thompson, superintendent, Methodist Hospital, Princeton. Mrs. L. Luella Cox, in collaboration with Dr. G. S. Silliman, roentgenologist, Methodist Hospital, Gary, presented important problems of the physical therapy and x-ray departments. The formal papers were followed by round table discussions.

Doctor English Is Luncheon Speaker

Members of the Illinois and Wisconsin Hospital Associations were guests of the Indiana Association at the luncheon Wednesday noon. Nearly 100 persons enjoyed the program of music and speeches. Albert G. Hahn, business manager, Protestant Deaconess Hospital, Evansville, president of the Indiana Association, presided. Seated at the speakers' table as guests of honor were trustees of the American Hospital Association and representatives of the American Medical Association. Dr. Frank C. English, executive secretary, American Protestant Hospital Association, gave the luncheon address.

Legal relationships of the hospital and its patients were clearly explained by J. D. O'Meara, Fort Wayne, at the afternoon session presided over by Dr. John W. Coon, Steven's Point, president of the association. Mr. O'Meara stressed the fact that the hospital's responsibility was to each patient and never to outside organizations such as insurance companies. "The only thing that binds you is the implied contract entered into between your institution and your patients when you accepted them for treatment," he declared. Concrete cases involving legal difficulties of hospital superintendents were submitted by administrators for analysis by the speaker. The report of the Indiana legislative committee was presented and plans for National Hospital Day, 1930, were outlined by Matthew O. Foley, editor, *Hospital Management.*

How to Reduce Special Charges

On Thursday and Friday joint meetings of the three associations were held morning and afternoon. At the Thursday morning session the chair was taken by Dr. Donald M. Morrill, superintendent, Blodgett Memorial Hospital, Grand Rapids, Mich., president of the Michigan association. Dr. Bert W. Caldwell, executive secretary of the American Hospital Association, was the first speaker, his topic being hospital administration. Doctor Caldwell named care of the patient, medical and nursing education, research and preventive medicine as the four fundamental and primary functions of hospital work and made practical suggestions as to how these may best be carried on.

How to absorb and reduce special charges in the small general hospital was told in an excellent paper by L. C. Austin, superintendent, Mt. Sinai Hospital, Milwaukee. Mr. Austin gave detailed figures showing how in his hospital he has devised a scheme for solution of this vexing problem.

The subject of endowments for schools of nursing was the next topic considered and on this subject a splendid paper was given by Adda Eldredge, R.N., director, State Bureau of Nursing Education, Madison, Wis. Yale and Western Reserve Universities are the only universities having endowed schools of nursing, Miss Eldredge said. She dealt in authoritative fashion with the whole question of the financing of nursing education.

The session was concluded with a paper on the proper ratio of personnel to patients by Dr. T. R. Ponton, superintendent, Illinois Masonic Hospital, Chicago. Doctor Ponton's paper aroused lively discussion, which was led off by Doctor Buerki.

At the afternoon session J. W. Meyer took the chair and the first talk was given by Veronica Miller, R.N., superintendent, Henrotin Hospital, Chicago. Miss Miller described the preliminary steps to be taken by a superintendent in the planning of a hospital, among which she named (1) a general survey of organization and location, (2) outline of financial and building program, (3) systematic investigation of hospital construction materials and equipment, (4) a complete list of everything needed in a hospital, (5) close study of plans before working drawings are made.

The next paper was given by John A. McNamara, executive editor, THE MODERN HOSPITAL, Chicago. It dealt

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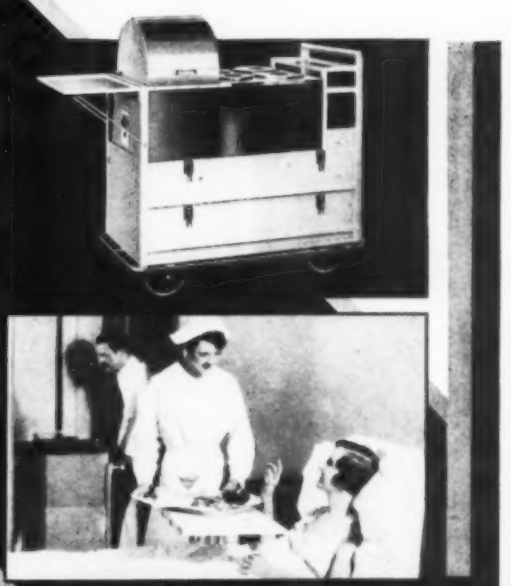

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News of the Month

with the functions of state hospital associations and reviewed the work carried on by some of the larger hospital groups.

The much discussed subject of the cost of illness was again taken up at this session in a paper by Frank D. Loomis, secretary, Chicago Community Trust. Mr. Loomis suggested as methods of improving the situation the development of more small wards and semiprivate rooms and the popularizing of the use of beds in large wards, which might be reserved wholly for the use of patients who could pay for them. Measures to make more certain the payment of the patient's bill were proposed by the speaker as follows: forms of insurance; installment payment; collection through a central agency.

Banquet Well Attended

The concluding paper of the session was given by Dr. Stewart Hamilton, director, Harper Hospital, Detroit, on "The Coordination of Departments."

The banquet on Thursday night was an unqualified success. The speakers were Dr. C. G. Parnall, medical director, Rochester General Hospital, Rochester, N. Y., president of the American Hospital Association, and Rev. Frederic Siedenburg, S.J., school of sociology, Loyola University, Chicago. There was a large attendance and music by a male quartet enlivened the proceedings.

The programs at the Friday sessions were as follows: In the morning, "Staff and Departmental Meetings," Dr. M. T. MacEachern, director of hospital activities, American College of Surgeons; "What a Trustee Should Know," by Richard P. Borden, president, Union Hospital, Fall River, Mass., read by I. C. Wallan, superintendent, Lutheran Hospital, La Crosse, Wis.; "The X-Ray Film Situation," Dr. Charles E. Remy, superintendent, Montefiore Hospital, Pittsburgh, read by J. Dewey Lutes, superintendent, Lake View Hospital, Chicago. In the afternoon, "Emergency Work in the General Hospital," Mrs. Valentine R. Bosworth, superintendent, Chicago Memorial Hospital, Chicago; "The Hospital a Center for Cooperative Community Social Work," Helen Beckley, executive secretary, American Association of Hospital Social Workers, Chicago; "The Hospital Dietitian—Status, Relations, Functions," Mary A. Harmon, chief dietitian, Butterworth Hospital, Grand Rapids.

As a result of the elections of officers the following will guide the affairs of the three associations for the coming year: Illinois association, president, E. E. Sanders, superintendent, Ravenswood Hospital, Chicago; secretary and treasurer, E. I. Erickson, superintendent, Augustana Hospital, Chicago, (reelected); Wisconsin association, president, Dr. R. C. Buerki; secretary, L. C. Austin, superintendent, Mt. Sinai Hospital, Milwaukee; Indiana association, president, Dr. William A. Doeppers, Indianapolis City Hospital, Indianapolis; president-elect, Dr. Edward T. Thompson, superintendent, Indiana University Hospitals, Indianapolis; secretary, Gladys Brandt, superintendent, Cass County Hospital, Logansport, Ind.

At one of the joint sessions a motion was made and carried that the Hospital Association of Illinois extend an invitation to the associations of Indiana, Wisconsin, Michigan, Iowa and Minnesota to join with Illinois in forming a federation of hospitals to meet together in Chicago in 1931.

New York Doctors' Hospital Includes Hotel

The new Doctors' Hospital, built at a cost of $4,500,000 at Carl Schurz Park, overlooking Hell Gate Bridge, the East River and Long Island, in New York City, was opened on February 17.

One hundred and eighty-two doctors of New York City not only are on the medical board but also own stock in the holding company that owns the site and building. The hospital facilities, which include 264 private rooms and complete general hospital equipment, will be open to the general public as well as to private patients of the doctor owners.

An unusual feature of this hospital is the entire floor devoted to thirty-two guest rooms, each with a bath, which will be operated as a hotel for friends and relatives who may wish to be near the patients in a crisis.

The building also houses such hotel facilities as a barber shop, florist, tailor, public stenographer, telegraph office, newspaper and magazine stand, drugstore, gymnasium, a special lounge for guests and patients, a library and private reception rooms. An enclosed solarium and an open roof garden are provided for the patients.

Two floors with thirty-two rooms each and with four delivery rooms and two nurseries make up the obstetrical department alone. The new building also contains an x-ray department, a physiotherapy department and pathological departments. Eight operating rooms, taking up an entire floor, are provided for general and special surgical work.

Passavant Hospital Installs Oxygen Chamber

Passavant Memorial Hospital, Chicago, is now equipped to give scientific aid in the battle against pneumonia as the result of the recent installation of an oxygen chamber.

The oxygen room, which is designed to regulate with the greatest precision the atmosphere surrounding the patient, is one of only four or five in the country.

Col. Robert R. McCormick, editor of the *Chicago Daily Tribune*, was the donor of the fund that made the gift possible.

Prominent Speakers Address New York Dietitians

The New York Association of Dietitians, at their annual lecture in January, when they met in joint session with the Section of Medicine of the New York Academy of Medicine, had the opportunity of hearing talks by four of the nation's leading authorities on nutrition. Dr. Lafayette B. Mendel, dean of the Yale University Medical School, spoke on "Some Chemical Aspects of Nutrition" and a discussion followed in which Dr. Eugene F. Du Bois, of the Russell Sage Foundation, Dr. Graham Lusk, Cornell University Medical School and Dr. Henry C. Sherman of Columbia University took part.

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Hospital genius outwits operating costs

In spite of the fact that the cost of every item used in the construction of hospitals has grown incredibly in the past few years . . . that payrolls have tended constantly upwards, and that practically every item in the budget is more costly, hospital boards are discussing cutting their service charges.

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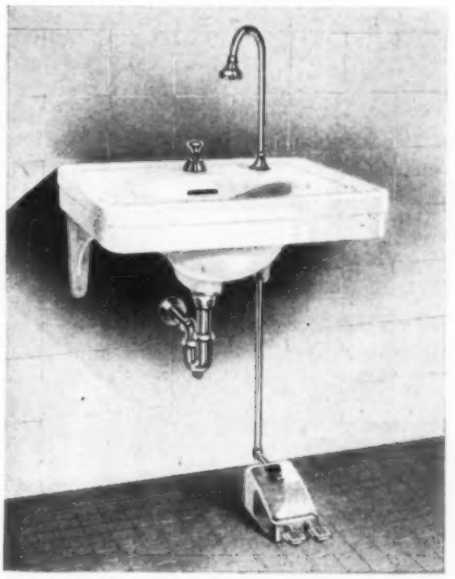

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News of the Month

Reducing Illness Costs Is Keynote of Methodist Meeting

MORE than 200 administrators assembled at the Congress Hotel for the twelfth national convention of the Methodist Hospitals, Homes and Deaconess Association, February 18 and 19. The keynote address by President J. A. Diekmann, superintendent, Bethesda Hospital, Cincinnati, initiated the discussion of hospital problems.

Constructive suggestions for remedies for the high cost of sickness were advanced by Mr. Diekmann. He suggested that hospital executives curb the tendency toward costly ornamentation of buildings; eliminate waste; eliminate the payment of stipends to student nurses (a step which the speaker claimed would automatically improve the quality of nurse graduates); set up a courageous revision of courtesy schedules for free work performed for employees, staff physicians and members of their families; seek a more solid financial foundation with greater endowment funds. The speaker decried the comparison of hospitals with hotels.

The Tuesday morning program was concluded with reports of the secretary and the treasurer, a sketch that portrayed a dialogue between an institutional representative and an unwilling layman from whom the former was trying to solicit a contribution, and a general discussion of hospital problems.

Group Discussions Are a Feature

Group meetings for round table discussion were held Thursday afternoon. At the session on hospitals E. S. Gilmore, superintendent, Wesley Memorial Hospital, Chicago, guided the discussions which followed the prepared papers. Present day dangerous tendencies in hospital life were pointed out by Mae Tompkins, superintendent, Methodist Hospital, Peoria, Ill.

Dr. Ethel M. Laybourne, superintendent, Methodist Hospital, Freeport, Ill., led the discussion on anesthetics and anesthetists. The use of hygrometers to measure the humidity of operating rooms and the careful control of moisture in operating rooms was suggested as the most practical method of eliminating static in the use of anesthetics. Dr. C. S. Woods, superintendent, St. Luke's Hospital, Cleveland, urged that each medical school require the fifth year in medicine or the hospital internship as a prerequisite for the granting of its degree. The Rev. Carroll Lewis, executive secretary, Christ Hospital, Cincinnati, declared that the hospital should create its own atmosphere, and should not ape the atmosphere of a private home, a hotel or any other institution.

Other papers were presented as follows: "The Hospital Laboratory," J. Fred King, superintendent, Methodist Hospital, Joplin, Mo., and "The Value of Criticism to the Hospital," Dr. George M. Smith, superintendent, Methodist Hospitals of Indiana, Indianapolis.

Bishop H. Lester Smith, Chattanooga, Tenn., was the speaker at the annual banquet Tuesday evening.

At the Wednesday morning session there was a debate on the subject: "Resolved, That the institutional building—its finances, equipment and apparatus—is a greater factor than the personnel." Annuities and nursing problems were considered in the formal papers presented.

Reports from group meetings were given at the Wednesday afternoon session. Officers were elected for the current year, as follows: president, Dr. C. Lloyd Strecker, Cincinnati; secretary, G. M. Hanner, superintendent, Beth-El Hospital, Colorado Springs, Colo.; treasurer, Dr. Bascom Robbins, executive secretary, Bethany Hospital, Kansas City, Kan. Both Mr. Hanner and Doctor Robbins were reelected.

Illinois Hospital Adopts Flat Rate

Passavant Memorial Hospital, Jacksonville, Ill., announces the adoption of a flat rate basis of charges. The costs of private rooms range from $6 to $3 a day, and semiprivate rooms are $4 a day. The ward rate is $2.50 a day. There are from three to six beds in a ward. This rate includes drugs and dressings.

The laboratory is operated on a flat rate basis of $4 and $3 a patient for routine tests. This price includes frequent retests.

The maternity department is operated on a flat rate basis of $25 a week for a two-bed room, and $35 and $40 a week for a private room. This price includes the use of the delivery room and laboratory and drugs, dressings and care of the baby.

Tonsil and adenoid cases are charged from $12 to $15.50 for twenty-four hours' service.

The average stay in the hospital for 1929 was thirteen days; the average cost per patient per day, $4.74, and the average bill per patient, $61.62.

Charges in the out-patient department, including drugs and dressings, ranged from $5 to $0.50.

Wisconsin to Have Children's Orthopedic Hospital

Construction will begin in the Spring on the Wisconsin Orthopedic Hospital for Children on the campus of the University of Wisconsin at Madison.

The building, for which an appropriation of $300,000 has been made, will accommodate 112 beds for crippled children. It will provide sixteen rooms with six beds each in addition to eight smaller rooms accommodating from one to four beds each. Two operating rooms will be on the top floor and the facilities include diet and special kitchens and a small gymnasium.

The new hospital will be of Italian architecture harmonizing in design and in its buff brick exterior with the Wisconsin General Hospital and nurses' home near which it is located.

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News of the Month

Iowa's First Group Meeting Proves Great Success

HEARTY support for those who organized the Iowa State Hospital Association last June was tangibly displayed by the spendid attendance of nearly 200 delegates at the association's first formal meeting, held at Waterloo, February 27 and 28.

Further encouragement was accorded the officers of the association by the fact that at this meeting the nominating committee recommended the reelection of all the officers, partly on the ground that they had not yet served a year and should be given the opportunity to develop further the plans they had formulated for the successful functioning of the association.

Robert E. Neff, administrator, University Hospitals, Iowa City, president of the association, is to be congratulated on so successfully filling the rôle of chairman at this initial meeting. In his efforts to make the gathering informal, friendly and of real benefit to all those present he was ably seconded by the association's secretary, Harold A. Grimm, superintendent, Finley Hospital, Dubuque, and by the members of the reception committee, headed by its chairman, Clinton F. Smith, superintendent, Allen Memorial Hospital, Waterloo, who showed many courtesies and gave ready assistance to the guests.

The only event scheduled for the first morning was a tour of three outstanding Waterloo hospitals. Cars generously supplied and chauffeured by Waterloo citizens carried the guests to the Presbyterian, St. Francis and Allen Memorial Hospitals and incidentally provided a pleasant ride around the city. The inspection of the hospitals brought to light interesting features in all of them and the visits were greatly enjoyed.

Mr. Neff took the chair at the first session on Wednesday afternoon and at the other sessions and carried forward the discussions of the various topics, eliciting many expressions of opinion from the floor and summing up the discussions with skill. The outstanding papers of this session and indeed of the entire meeting were those of Dr. Kate Daum, assistant professor of nutrition, University Hospitals, Iowa City, on "Principles of Nutrition as Applied to Hospitals," and of Dr. F. P. McNamara, pathologist, Finley Hospital, Dubuque, on "Laboratory Service for the 100-Bed Hospital."

Principles of Nutrition Discussed

Doctor Daum gave an exhaustive and interesting paper on how the hospital can provide an adequate diet for every person for whom the hospital supplies food—a diet adequate in protein, both amount and kind; in energy value; in minerals, vitamins and bulk. Whether an institution is to establish minimum or maximum standards of adequacy must depend, of course, upon the amount of money available and other factors, Doctor Daum said, but certainly a children's hospital, regardless of expense, should have a diet that will stimulate maximum physical development, she declared. Doctor Daum's paper will appear in an early issue of THE MODERN HOSPITAL.

In his paper on laboratory service Doctor McNamara emphasized the broad scope of the service laboratories in smaller hospitals can give and told of the work as it is carried on in his institution. He classed this service under three main headings, (1) that concerned with the welfare of the patient; (2) that concerned with determining the causes of failure in treatment; (3) that concerned with the advancement of the science of medicine. Doctor McNamara's paper will be published in one of the early issues of THE MODERN HOSPITAL.

Perhaps the high point of the convention was the address of Dr. Irving S. Cutter, dean, Northwestern University Medical School, Chicago, who was the speaker at the banquet Thursday night. Doctor Cutter's speech must have been an inspiration to many, touching as it did on the idealism that should surround the profession of medicine and emphasizing the fact that the hospital is the keynote of the future of medicine and is the place where can be assembled the groups of keen minds that will solve medical problems.

Friday's program consisted of morning and afternoon sessions when round table discussions of hospital ethics and practices were featured. At the morning session a paper on "The Soul of the Hospital" was read by Rev. A. Norrbom, D.D., superintendent, Iowa Lutheran Hospital, Des Moines. Dr. Bert W. Caldwell, executive secretary, American Hospital Association, also gave a talk on high standards of hospital service.

An exhibit of hospital equipment and supplies was on display and was of much interest to delegates.

Iowa Dietitians Organize

A group of Iowa dietitians met in conjunction with the convention of the Iowa State Hospital Association at Waterloo, February 27 and formed the Iowa Dietetic Association. At this time temporary officers were elected as follows: president, Dr. Kate Daum, assistant professor of nutrition, University Hospitals, Iowa City; vice-president, Minna Wikoff, Coe College, Cedar Rapids; secretary and treasurer, Dorothy Anderson, Iowa State College Hospital, Ames; chairman of membership committee, Myrtle Larson, Iowa Lutheran Hospital, Des Moines; member at large, Nellie Engelbright, Allen Memorial Hospital, Waterloo.

These officers will form a committee of five to draw up a constitution and start a membership campaign. The next meeting will take place at Iowa City in June, when permanent officers will be elected. At a luncheon meeting Robert E. Neff, University Hospitals, Iowa City, extended to the dietitians the greetings of the Iowa State Hospital Association and Doctor Daum brought greetings from Anna E. Boller, president of the American Dietetic Association and from Dr. Bert W. Caldwell, executive secretary, American Hospital Association.

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THE Mississippi River Steamboat, in retrospect, is the romantic symbol of the tremendous development of the mid-west and southwest. The first of these boats was built in 1811—an adaptation of Robert Fulton's "Clermont". This type proved impracticable for shallow, tortuous channels, so Henry M. Shreve evolved the successful light draft, stern wheel steamer. The fame of one river pilot still endures—that of the immortal "Mark Twain"

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News of the Month

Pennsylvania Association to Meet This Month

The Hospital Association of Pennsylvania will hold its ninth annual meeting in Pittsburgh on March 25, 26 and 27, with headquarters at the William Penn Hotel.

Elizabeth H. Shaw, superintendent of St. Margaret's Memorial Hospital, Pittsburgh, and president of the association, will preside at the opening session on Tuesday afternoon. Charles H. Kline, mayor of Pittsburgh, will welcome the delegates to the city, while S. D. Hunter, president of the Hospital Conference of Pittsburgh and superintendent of Washington Hospital, Washington, Pa., will respond to the mayor's address. After this meeting, those attending the conference are invited to visit the new Montefiore Hospital, an institution which has many new and interesting features.

At the Wednesday morning session the president's annual address will be given and O. J. Keeler, editor of the *Pittsburgh Post-Gazette*, will speak.

On Wednesday afternoon, a round table discussion on "Hospital Economics" will be led by John A. McNamara, executive editor of THE MODERN HOSPITAL. The election of officers for the coming year will be held at this time.

The delegates will assemble for a social session on Wednesday evening, when the association dinner will be held at the William Penn Hotel. Vocal selections will be given by a local quartet, and Dr. Francis H. Green, headmaster, Pennington Seminary, Pennington, N. J., will be the speaker of the evening.

Two speakers of national interest will feature the Thursday morning meeting, when Christopher G. Parnall, president of the American Hospital Association and superintendent of the Rochester General Hospital, Rochester, N. Y., will give an address, and Malcolm T. MacEachern, director of hospital activities, American College of Surgeons, Chicago, will conduct a round table discussion on general hospital problems.

At the final session on Thursday afternoon, Thyrsa W. Amos, dean of women at the University of Pittsburgh, will speak and Jesse L. Turnbull, R.N., Elizabeth Steel Magee Hospital, Pittsburgh, will conduct the discussion. At this time the officers elected at the Wednesday meeting will be formally installed.

Chicago Record Librarians Meet at Billings Hospital

The Association of Record Librarians of Chicago and Cook County met on February 19, at 8:00 p.m., at the Albert Merritt Billings Hospital, Chicago.

The importance of keeping accurate hospital records was emphasized by Dr. Russell M. Wilder, professor of medicine and chairman of the department of medicine at the University of Chicago, who gave an interesting talk on "Records as a Basis of Research."

"What Is a Unit System?" was the topic of the paper read by Dr. George M. Curtis, associate professor of surgery, University of Chicago, and Dr. Walter Palmer, assistant professor of medicine at the university, explained how a record room committee functions in maintaining efficient records.

After the general discussion that followed these papers, a demonstration was given of the unit record system.

An interesting feature of the meeting was a tour of the out-patient department and other points of interest in the Albert Merritt Billings Hospital.

Maurine S. Wilson, Ravenswood Hospital, is president of the association; Edna Kean, Evanston Hospital, Evanston, vice-president; Effie Barnholdt, Chicago Memorial Hospital, secretary, and Eleanor Roloff, Women and Children's Hospital, treasurer.

Coming Meetings

American Association of Hospital Social Workers.
President, Edith M. Baker, Washington University Dispensary and Allied Hospitals, St. Louis.
Executive secretary, Helen S. Beckley, 18 East Division Street, Chicago.
Next meeting, Boston, June 7-14.

American Hospital Association.
President, Dr. Christopher G. Parnall, Rochester General Hospital, Rochester, N. Y.
Executive secretary, Dr. Bert W. Caldwell, 18 East Division Street, Chicago.
Next meeting, New Orleans, October 20-24.

American Nurses Association.
President, S. Lillian Clayton, Philadelphia General Hospital, Philadelphia.
Secretary, Susan C. Francis, Children's Hospital, Philadelphia.
Next meeting, Milwaukee, June 9-14.

American Occupational Therapy Association.
Vice-president, Dr. B. W. Carr, Washington, D. C.
Secretary-treasurer, Mrs. Eleanor Clarke Slagle, 175 Fifth Avenue, New York City.
Next meeting, New Orleans, October 20-24.

American Protestant Hospital Association.
President, Luther G. Reynolds, Seattle General Hospital, Seattle, Wash.
Executive secretary, Dr. Frank C. English, Hyde Park, Station O., Cincinnati.
Next meeting, New Orleans, October 17-20.

American Society of Clinical Pathologists.
President, Dr. J. H. Black, Dallas, Texas.
Secretary-treasurer, Dr. H. J. Corper, Metropolitan Building, Denver, Colo.
Next meeting, Detroit, June 20-23.

Children's Hospital Association of America.
President, Dr. Howard Childs Carpenter, 1805 Spruce Street, Philadelphia.
Secretary-treasurer, Bena M. Henderson, Milwaukee Children's Hospital, Milwaukee.
Next meeting, New Orleans, October 20-24.

Georgia Hospital Association.
President, Dr. C. S. Lentz, University Hospital, Augusta.
Secretary, J. B. Franklin, Georgia Baptist Hospital, Atlanta.
Next meeting, Augusta, May 13.

International Catholic Federation of Nurses.
President, Alice M. O'Halloran, 847 Wynnewood Road, Overbrook, Philadelphia.
Executive secretary, Margaret E. Molloy, Intenational Headquarters, Suite 130, 430 South Michigan Avenue, Chicago.
Next meeting, Milwaukee, June 6-8.

Midwest Hospital Association.
President, Dr. Fred S. Clinton, Oklahoma Hospital, Tulsa, Okla.
Secretary, Walter J. Grolton, Missouri Pacific Hospital, St. Louis.
Next meeting, Tulsa, Okla., April 25 and 26.

Minnesota Hospital Association.
President, J. J. Drummond, Worrell Hospital, Rochester.
Secretary, J. G. Norby, Fairview Hospital, Minneapolis.
Next meeting, St. Paul, May 23 and 24.

National League of Nursing Education.
President, Elizabeth C. Burgess, Columbia University, New York City.
Secretary, Nina D. Gage, 370 Seventh Avenue, New York City.
Next meeting, Milwaukee, June 9-14.

National Organization for Public Health Nursing.
President, Anne L. Hansen, 181 Franklin Street, Buffalo, N. Y.
Director, Katherine Tucker, 370 Seventh Avenue, New York City.
Next meeting, Milwaukee, June 9-14.

Hospital Association of Pennsylvania.
President, Elizabeth H. Shaw, St. Margaret's Memorial Hospital, Pittsburgh.
Secretary, Howard E. Bishop, Robert Packer Hospital, Sayre.
Next meeting, Pittsburgh, March 25-27.

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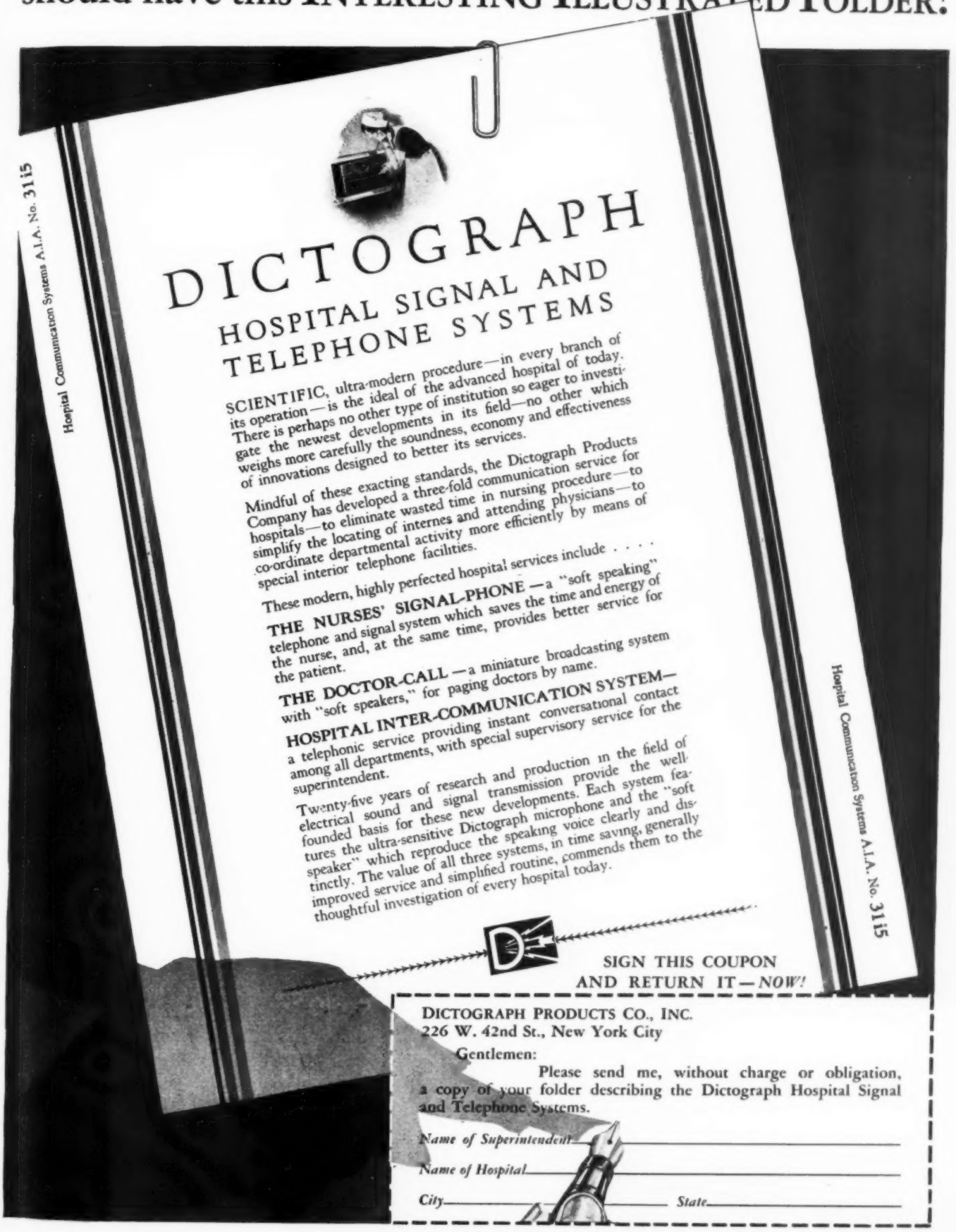
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Personals

MAURICE DUBIN has assumed the duties of superintendent of Mt. Sinai Hospital, Chicago. For the past five years Mr. Dubin has been superintendent of the Mt. Sinai Hospital, Philadelphia, and preceding that he was head of Bronx Hospital, New York City.

J. ERNEST SHOUSE recently accepted the superintendency of the City Hospital, Louisville, Ky., succeeding JOHN D. TABER, who has been superintendent since 1927. MR. SHOUSE was once superintendent of the institution that he now heads.

W. D. BARKER is superintendent of the Noyes Baptist Hospital, St. Joseph, Mo.

ALMA CLYDE FAUST, R.N., was recently made superintendent of the Colbert County Hospital, Sheffield, Ala.

LOTTIE M. EURE is acting superintendent of the Watts Hospital, Durham, N. C.

J. E. OLIVER, formerly superintendent of the State Baptist Hospital, Alexandria, La., was recently made superintendent of the Birmingham Baptist Hospital, Birmingham, Ala.

DR. DENNETT L. RICHARDSON has recently been reelected superintendent of the Providence City Hospital, Providence, R. I.

MONTEZ WAYNE has been appointed as the new superintendent of the Petersburg Hospital, Petersburg, Va., succeeding ISABEL SIMPSON, who resigned recently to become superintendent of the Southern Orthopedic Hospital, Richmond, Va., which opened in January.

DR. S. E. LEE has received the appointment of superintendent of the Greenville County Tuberculosis Hospital, Greenville, N. C., to open on May 17.

WILLARD W. BUTTS has been appointed superintendent of St. Luke's Hospital, Bethlehem, Pa., to succeed C. CLAFLIN DAVIS, resigned.

HELEN A. WOODING has assumed the duties of business manager of the American Dietetic Association, to succeed DOROTHY B. RICHMOND, resigned.

DR. H. E. ST. ANTOINE, head of the veterans' hospital at American Lake, Wash., has been transferred to Veterans' Hospital No. 10, North Chicago, Ill., to succeed DR. ALBERT E. BROWNRIGG, who has been assigned to the veterans' hospital at Philadelphia.

FLORENCE E. MERRILL is acting superintendent of the Clinton Hospital, Clinton, Mass., succeeding ELIZABETH HANSEN, who has resigned.

AGNES MCGINLEY is the superintendent of the new DeEtte Harrison Detwiler Memorial Hospital, recently opened at Wauseon, Ohio.

GRACE L. DEVILBISS is now superintendent of the Woodlawn Hospital, Chicago.

CHARLES H. REINHOLD was recently made superintendent of Warren Hospital, Philipsburg, Pa.

PARMELA HARRIS was recently appointed superintendent of the King's Daughters Hospital, Yazoo City, Miss., succeeding M. LOUISE MURPHY, resigned.

DR. W. C. REINEKING is the newly appointed superintendent and medical director of the Dane County Tuberculosis Sanatorium recently opened in Wisconsin. DOCTOR REINEKING has had considerable experience in sanatorium work, having been connected with the sanatorium at Wales, Wis., the Municipal Tuberculosis Sanatorium, Rockford, Ill., the county sanatorium at Muskegon, Mich., and the Grandview Sanatorium, Ironwood, Mich., his last post before taking up his new duties.

FRANCES DOWD is the new superintendent of the Paul Kimball Hospital, Lakewood, N. J.

GRACE HANSEN is head of the new Sternberger Children's Hospital, recently dedicated at Greensboro, N. C.

DR. GEORGE S. EDMONDSON, Clinton, Ill., has been appointed superintendent of the Kankakee State Hospital, Kankakee, Ill.

GOLDIE M. LAKE, R.N., has resigned as superintendent of the Lafayette Home Hospital, Lafayette, Ind.

MARTHA V. MILLS recently was appointed superintendent of the Burlington County Hospital, Mount Holly, N. J. MISS MILLS was formerly superintendent of nurses at this hospital.

DR. E. E. GLEEN has been named superintendent of the state sanatorium at Mount Vernon, Mo.

DR. B. H. YOUNG, formerly assistant superintendent of the hospital for the insane at Fulton, Mo., has been appointed superintendent of the institution to succeed DR. E. G. MCGAUGH.

DR. FRANK L. S. REYNOLDS, superintendent of the Pawling Sanitarium, Albany, N. Y., for seventeen years, will resign soon and will specialize in x-ray work and in the treatment of tuberculosis.

IONE ANGLIN has announced her resignation as superintendent of the Huntington City Hospital, Huntington, W. Va.

DR. THEODORE A. HOCH has accepted the superintendency of the Northampton State Hospital for the Insane, Northampton, Mass., succeeding DR. JOHN A. HOUSTON. DOCTOR HOCH, an associate commander of the Massachusetts department of mental diseases, has been assistant superintendent of the state hospital at Worcester, Mass., for the past six years.

HELEN AAL, for several years superintendent of the Community Hospital, Geneva, Ill., has resigned her position. MINNIE H. AHRENS, formerly superintendent of Provident Hospital, Chicago, will succeed MISS AAL.

W. MARION SMITH, superintendent of the Women and Children's Hospital of Chicago for five years, has accepted the superintendency of the Woman's Hospital, New York City.

HAROLD K. THURSTON has accepted the superintendency of the Muncie Home Hospital, Muncie, Ind. MR. THURSTON was formerly superintendent of the Berwyn Hospital, Berwyn, Ill.

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A. L. Jackson, Chairman of the Board of Trustees of Provident Hospital writes us in part as follows:

"It is probably true that no appeal has ever been presented under such serious handicaps, which include the launching of it practically in the middle of a financial panic." . . . "However, we have come through with flying colors, and we are, therefore, corespondingly grateful for the expert direction and leadership given to the Campaign by yourselves."

"Financing Social Progress" Sent on request.

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News of the Month

Dr. Chevalier Jackson to Devote Entire Time to New Clinic

Dr. Chevalier Jackson, Philadelphia, has recently resigned from the faculties of the Jefferson Medical College and the University of Pennsylvania Graduate School of Medicine, and will devote his entire time to the development of the bronchoscopic clinic of the Samaritan Hospital and to his professorship at Temple University School of Medicine. Doctor Jackson will continue, however, as William Potter memorial lecturer at Jefferson Medical College, since the appointment, made several years ago, was for life.

Dr. Louis H. Clerf and Dr. Edmund Auccin will direct the bronchoscopic clinic at Jefferson Medical College and Dr. Gabriel Tucker will be in charge of the clinic at the University of Pennsylvania.

Doctor Jackson's son, Dr. Chevalier L. Jackson, will assist him at the new clinic, of which Dr. Emily L. Van Loon is the chief.

Boston Announces $3,185,000 Hospital Program

Mayor Curley of Boston and the Boston City Hospital trustees recently announced a $3,185,000 building program for the City Hospital and other municipal hospitals. Of this sum, $1,520,000 will be spent during 1930.

The building program includes plans for an administration building for the City Hospital, which will cost $420,000; a laundry at an estimated cost of $175,000; a children's pavilion for which $325,000 has been apportioned; new buildings for the tuberculosis sanatorium at Mattapan, which will cost $450,000; furnishings and equipment for the medical pavilion which will cost $70,000 and the remodeling and reconstruction of the administration building and nurses' home of the south department of the hospital, which will entail an expenditure of $80,000.

To complete the program and to provide Boston with what Mayor Curley is certain will be the best equipped hospital facilities in the country, he will appropriate next year $1,350,000 for a surgical pavilion and $315,000 for a kitchen and equipment.

A. H. A. Acts to Reduce Fire Hazards

The following letter was recently sent out by the committee on fire insurance of the American Hospital Association to all members of the association:

"Three years ago the American Hospital Association appointed a committee to make a study of fire insurance rates in hospitals with a view to a revision downward if possible in these rates.

"Following the Cleveland disaster the National Board of Fire Underwriters appointed a committee to cooperate with this committee, and have proposed making a thorough inspection of every hospital in America either through their own or affiliated organizations without any charge to the hospitals.

"Since the meeting of the joint committee, six months ago, the National Board of Fire Underwriters have inspected 752 hospitals throughout the United States and are continuing this activity at a rate of over one hundred hospitals per month. Every hospital that has been inspected has expressed a high appreciation of the value of this inspection.

"Such an inspection of your hospital will show whether you are now getting the rate which your conditions merit; whether your conditions can be improved so as to obtain a better rate, and how hazards to life as well as property may be reduced.

"A complete analysis of the inspection of every hospital will be made when the work is completed. This compilation will provide information upon which the National Board of Fire Underwriters can determine the base rate for all hospitals, also the advantages to be obtained by using fireproof construction.

"Your committee urges you to have your inspection made at the earliest possible date. A list of inspectors for the entire country is enclosed herewith from which you can select the one in your district to whom you may apply.

"You owe it to your own and to every other hospital in America to avail yourself of these inspections at as early a date as possible."

Minnesota Executives Will Convene at St. Paul in May

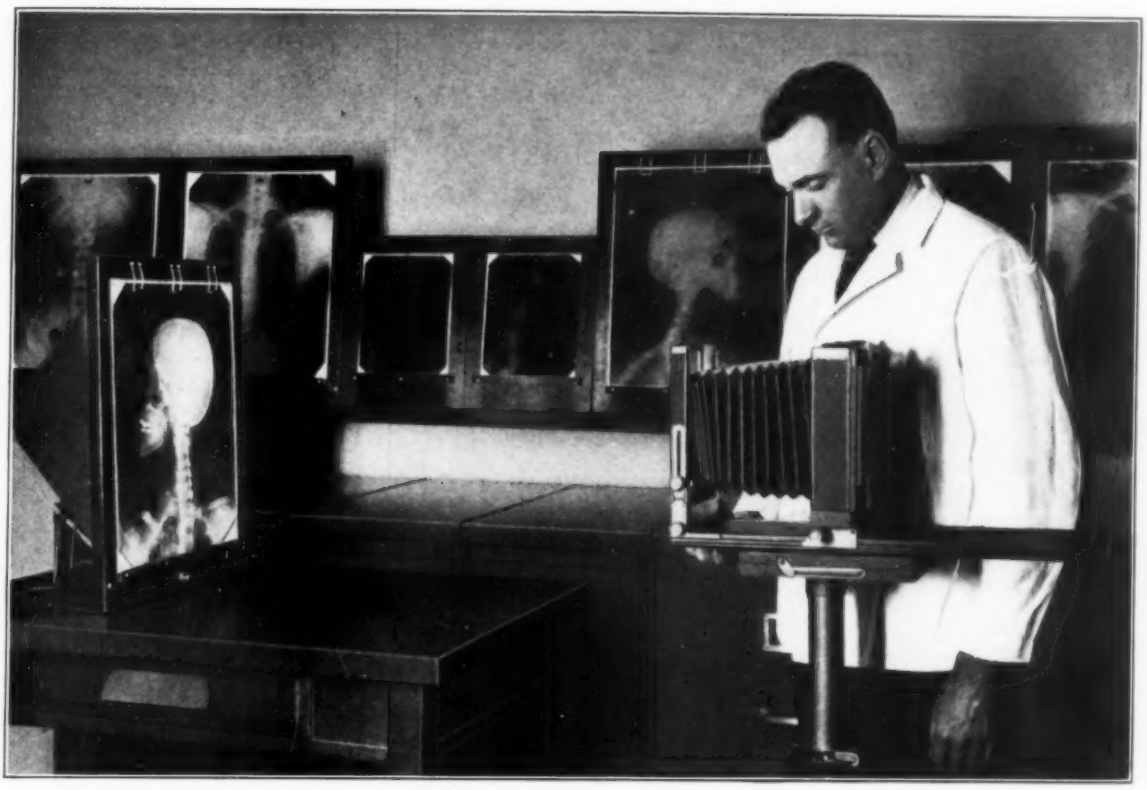
The annual meeting of the Minnesota Hospital Association will be held this year in St. Paul, May 23 and 24. It is expected there will be a large gathering of the superintendents from all parts of the state to participate in the program and to enjoy the hospitality of St. Paul, a city with many interesting features.

New York Prison Hospital Is Enlarged

The Correction Hospital on Welfare Island, New York City, will be the largest prison hospital in the world when the four new wards for men are completed some time this month.

The prisoners themselves have been doing the renovating and the work has cost the city practically nothing. The new wards will increase the hospital accommodations to 450 and when completed will provide the hospital with equipment that is in accordance with modern hospital standards.

According to the *Journal of the American Medical Association*, the Correction Hospital is intended to centralize the hospitalization work of the department of correction. Patients brought to the Correction Hospital from the penitentiary hospital will benefit not only by the increased medical efficiency but also by the new methods of general character rebuilding that will be instituted.



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News of the Month

Gift for Cancer Study Goes to Pennsylvania University

Announcement that the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania had received a gift of $210,000 from a philanthropist who did not desire to have his name revealed was made on January 25 by Dr. Josiah H. Penniman, provost of the university.

The gift is the largest single contribution ever made to the Cancer Research Fund, which was established in 1928 through a gift made by Irene du Pont. It has enabled the fund to reorganize its work on a wider and more comprehensive basis and to make notable additions to its research staff, according to the provost.

A joint research project has been undertaken in association with the Bartol Research Foundation of the Franklin Institute, while arrangements have also been made for research work in association with the American Oncologic Hospital, a cancer hospital at Thirty-Third Street and Powelton Avenue, Philadelphia.

Plans are being developed for the equipment of a new clinic for modern diagnosis and treatment of tumors in the American Oncologic Hospital, and Dr. George M. Dorrance, professor of maxillofacial surgery in the School of Dentistry of the University of Pennsylvania, has been appointed chief of the clinic.

Central laboratories of the Cancer Research Fund have been established at 133 South Thirty-Sixth Street. Here a complete tissue culture department is under the direction of Dr. Clarence E. McClung, professor of zoology at the University of Pennsylvania, and Prof. David H. Tennent, of the department of zoology of Bryn Mawr College, Bryn Mawr, Pa.

At the Philadelphia General Hospital the Cancer Research Fund has had for some time a research laboratory for the study of biochemistry of the blood before and after radiation of patients, and for the study of the hematology and immunology of cancer. This laboratory works in conjunction with the cancer clinic of the Philadelphia General Hospital.

The director of the Cancer Research Fund is Dr. Ellice McDonald, assistant professor of gynecology in the Graduate School of Medicine of the university, and the fund is controlled by an executive committee consisting of Doctor McDonald, Dr. George H. Meeker, dean of the Graduate School of Medicine and Prof. W. F. G. Swann, director of the Bartol Research and special lecturer on electrical engineering at the university.

New Jersey Hospitals Surveyed

Commissioner William J. Ellis of New Jersey made public on January 20 the following hospital figures resulting from the statistical service carried on by the research division of the Department of Institutions and Agencies of the state under the direction of Dr. Emil Frankel in cooperation with the New Jersey Hospital Association.

Fifty general hospitals in New Jersey report a total expenditure of nearly $1,000,000 during the month of November, 1929. Against this figure are receipts totaling $570,000. Nearly 43 per cent, therefore, of the monthly expenses of these hospitals was devoted to charity work.

The average cost of maintaining a patient in a general hospital for any day in November equaled $5.26, the range in per capita cost being from $3 to $8.45. In 26 per cent of the hospitals the daily cost per patient was less than $4.50; in 35 per cent it ranged from $4.50 to $6, and in 39 per cent of the hospitals the cost was $6 a day or over.

During the month of November, 1929, there was a total number of 14,364 patients admitted to the fifty general hospitals under consideration. Thirty-eight per cent of these were in private and semiprivate rooms, and 62 per cent were ward patients. These individuals required 187,373 days of hospital service, of which 33 per cent were rendered to private and semiprivate and 67 per cent to ward patients.

The average rate of occupancy of the hospitals included in the survey was a little under 70 per cent. Ten of the hospitals had over 80 per cent of their beds occupied on the average, while fifteen hospitals were filled from within 65 to 80 per cent of their capacity. Half of the hospitals had 65 per cent or less of their beds occupied.

Nursing Organizations Will Meet in Milwaukee

The three national nursing organizations, the American Nurses' Association, the National League of Nursing Education and the National Organization for Public Health Nursing will meet in joint session at Milwaukee, June 9-14, 1930.

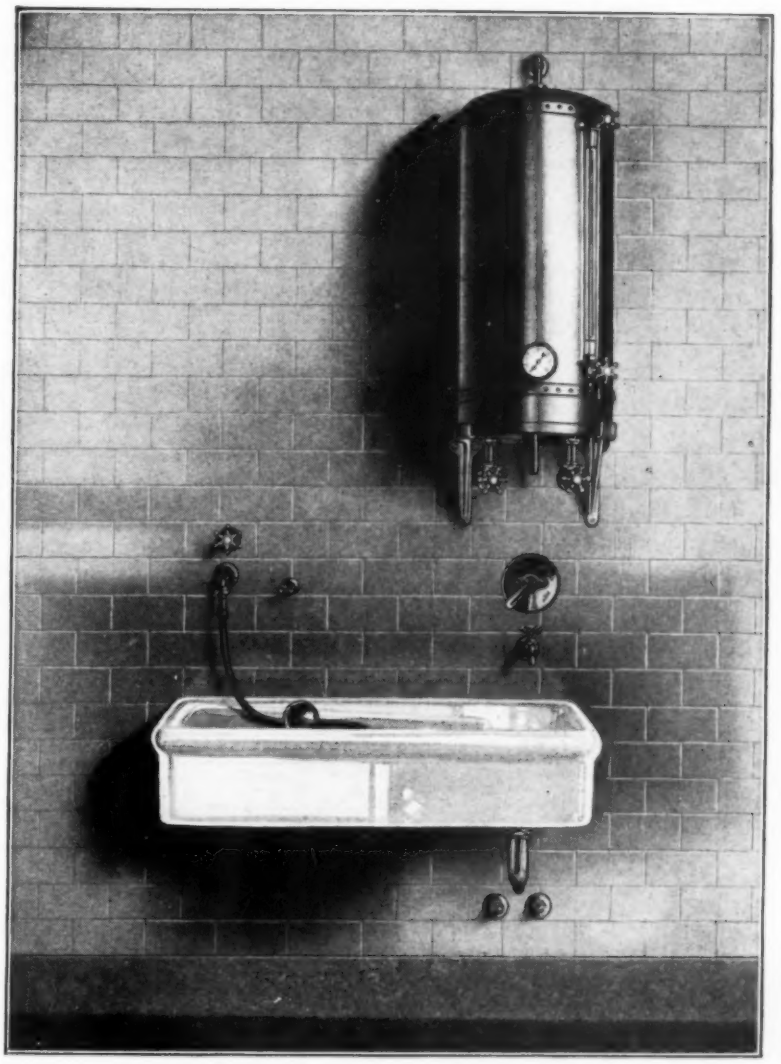
The meetings will be held in the Milwaukee Auditorium, while the Schroeder Hotel will be used by the boards and committees.

New York City Now Has Social Service Exchange

After months of conference and preparation on the part of the Charity Organization Society, the Brooklyn Bureau of Charities, the Welfare Council and interested agencies, New York City, on January 6 completed plans for a citywide social service exchange in the form of a merger with stock rights. The service will be under the direction of Edith Shatto King, at 151 Fifth Avenue.

More than 200 of New York's social agencies, including all the major ones, have agreed to participate in the new plan, while the Welfare Council has appointed a permanent standing committee on the exchange, with Solomon Lowenstein as chairman.

The task of actual reorganization is an enormous one, as revealed by the fact that last August, during one of the least difficult months of the year for families in distress and a period of apparent prosperity, ten of New York's family service agencies reported a total of 18,000 cases under care, 14,000 of which were rated as receiving "major care".



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News of the Month

New Medical Center to House 1,000 Nurses and Employees

Plans for two buildings designed to house 1,000 nurses and employees of the new medical center of the New York Hospital-Cornell Medical College Association, New York City, and all the service and power facilities for the center, were filed on January 14 with the municipal bureau of buildings.

This second building development of the association will occupy the major portion of the block between East Seventieth and Seventy-First Streets, York Avenue and Exterior Street. It will be joined by tunnels under Seventieth Street with the two-block plot to the south where excavation is already under way for the main buildings of the New York Hospital-Cornell Medical College and their three special institutes for maternity, pediatrics and psychiatry.

The latest plans call for extensive housing and service facilities. When complete the buildings will form the northern limit of six solid blocks of purely medical development along the East River, as the buildings of the Rockefeller Institute for Medical Research adjoin the site of the New York Hospital-Cornell center on the south.

The hospital nurses' building will be on York Avenue between Seventieth and Seventy-First Streets. It will house from 500 to 600 nurses. In designing this structure every effort is being made to provide conditions that will maintain the health and high morale required in persons who are expected to give the best care to patients and to advance the standards and methods of their calling.

Each nurse will have a private room, and the windows of all rooms will face the outside of the building. The building will contain a 60-foot swimming pool in the subbasement, a gymnasium in the basement and a large central living room and social hall on the first floor. The five top floors of the central tower will be devoted to apartments for the senior members of the permanent nursing staff.

Two five-story wings will flank the tower. In the northern wing there will be kitchens and one large dining room, in addition to living quarters. The south wing will house the nursing administrative offices, a large assembly hall, demonstration rooms, library, laboratories and other educational facilities.

The New York Hospital Graduate Nurses' Club is also planning eventually to have a new home in the vicinity of the center, with accommodations for about 300 graduate nurses. This will mean that a community of from 800 to 900 nurses will eventually be affiliated with the center.

The second tower called for in the plans to be filed will be superimposed upon a broad base of a four-story structure made up of the power plant, the laundry and the garage which will serve the medical center.

The power plant will generate all the heat, light, power and refrigeration service required by a population of 3,000 persons, including patients, doctors, medical students, nurses and employees, who will occupy buildings covering a three-block area. The laundry will have a capacity for washing 4,420,000 pounds of linen a year.

In order to prevent traffic congestion and undue noise in the vicinty of the center, five floors of garage space, for parking purposes only, will be provided on the Seventieth Street side of the building. The garage will accommodate 250 automobiles.

The construction of this lower part of the building will be designed with a view to insulating its sounds from the employees' dormitory tower, which, in keeping with the latest skyscraper design, will completely surround and hide the 300-foot stack of the power plant.

One of the chief problems encountered by the architects, Coolidge, Shepley, Bulfinch and Abbott, Boston, was the fact that the area between the two buildings had to be used as a service yard, where the almost constant loading and unloading of trucks would tend to create unsightly and noisy conditions under the windows of the living quarters for nurses and employees. This will be solved by roofing over the entire service yard and converting the roof into a garden.

Excavation for these latest buildings is to begin at once. The first two stories will be faced with limestone and the upper stories with brick. It is expected that the buildings will be ready for occupancy in 1932.

Although the New York Hospital and the Cornell Medical College will preserve their separate identities, the center is to be operated as a united institution under the joint administrative board of the association, the members of which are: Edward W. Sheldon, chairman; William Woodward, Frank L. Polk, Dr. Livingston Farrand, J. DuPratt White, Dr. Walter L. Niles and J. Pierpont Morgan.

A committe on nursing organization has been formed by the Joint Administrative Board from among alumnae of the New York Hospital to advise in the planning of the nurses' residence. The members of this committee are Mary Beard, director of nursing activities of the Rockefeller Foundation; Lydia E. Anderson, representing the alumnae association of the New York Hospital; Annie W. Goodrich, dean, Yale School of Nursing, and Minnie H. Jordon, directress of nurses of the New York Hospital. Ethel Johns, former superintendent of nurses at the Vancouver General Hospital, is director of study and is devoting her entire time to the work of the committee. Also affiliated with the undertaking is Alice Shepard Gilman, an accepted authority on nurses' schools and their facilities.

Fort Worth Chosen for Public Health Meeting

The fifty-ninth annual meeting of the American Public Health Association will be held at Fort Worth, Texas, during the week of October 27, 1930, with the Hotel Texas as headquarters.

At this time, health officers, nurses, dietitians, sanitary engineers, child and industrial hygienists will meet to consider their common problems. Each of ten sections of the association—health officers, laboratory, vital statistics, public health engineering, public health nursing, public health education, food, drugs and nutrition, industrial hygiene, child hygiene and epidemiology—will arrange an additional program for this meeting and there will be a number of general sessions to which the public is invited.

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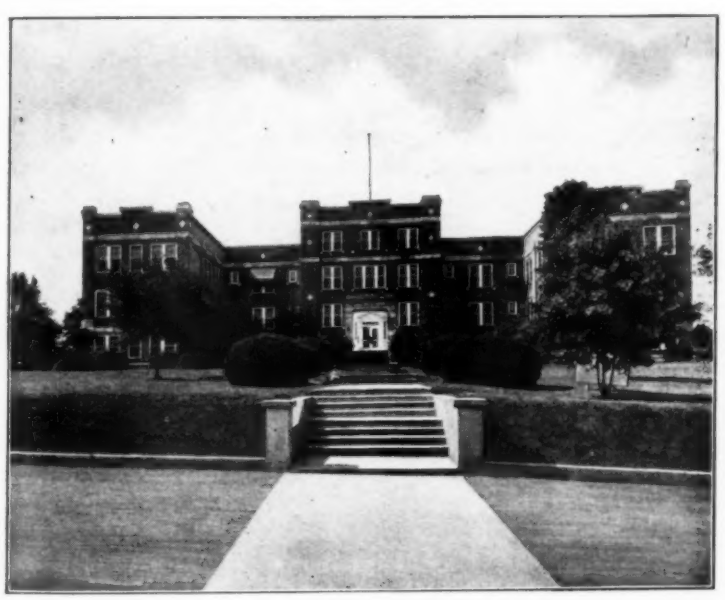

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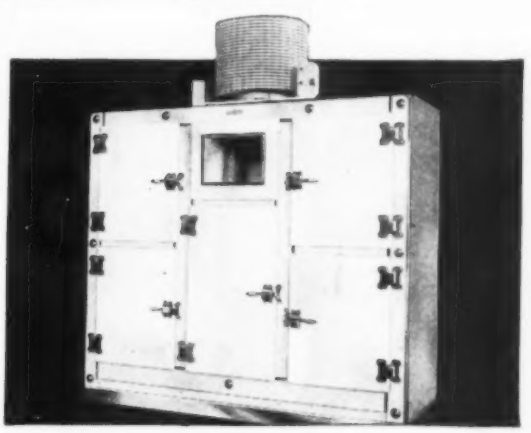

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By MARY M. FANNING, B.S.
Dietitian, Muhlenberg Hospital, Plainfield, N. J.

WITHIN the past fifteen years the department of dietetics has been accepted as a necessary part of the hospital, equal in importance to the other laboratories. The primary function of every modern hospital is the care of the sick and injured to which the dietitian makes an important scientific and therapeutic contribution.

Patients who are seeking relief from such diseases as diabetes or anemia would not receive complete care if there were not someone to carry out the physicians' orders and to guide the patient along the right nutritional path. The real science of nutrition has progressed notably and dietaries are now based on proved knowledge rather than on ancient notions. It is now recognized that nutrition is the science of the chemistry of living cells and not the mingling of proteins, carbohydrates, fats, mineral salts and water.

The administrative dietitian of a large institution has charge of the purchasing of all food supplies. She also supervises food preparation and service. To do this she must possess a keen insight into market conditions in order to benefit by any slight fluctuation in prices, either beneficial or unfavorable. She must recognize the standards of perfection upon which to base all supplies in order to discern readily any marked change either in the product itself or in the attention she is receiving from the producer. After the food has been purchased and received, the dietitian must supervise its use and note its consumption. Nor must she overlook the degree of waste.

The teaching dietitian of the large hospital should be especially and extensively trained. Besides having an academic background, she should have ability to understand the patients' needs and to give them instructions they will understand. We are no longer satisfied to relieve patients of their ills while they are in the hospital. Rather, we want to know of the permanent relief that results from teaching them how to feed themselves.

The teaching dietitian also has under her supervision the diet kitchen in which the training of the student nurse is an important duty. The nurse should be intrusted with the full responsibility of preparing the patients' food. She must know how to prepare a well balanced, simple meal for her patients, and in order to learn, she must actually do the work. I believe the time spent by the average student in training in dietetics is altogether too short, because the essentials are passed over so hurriedly that the net results to the student are a jumble of uncorrelated theory and unproductive practice. It is realized that with the crowded courses that the nurses have, it would tax them to give more time to dietetics. If it is possible to include from eight to ten weeks in the diet kitchen, the student should be given special therapeutic work; she should be given special administrative work in the dietary side of the problem in the diet kitchen and on the wards and she should know how the main kitchen is being managed.

What Department Is Responsible for

The aims of the dietary department are, first, to produce and distribute to the various groups foods representing the highest standard of scientific nutrition; second, to furnish corrective diets when they are needed and to contribute to the general bulk or knowledge, in both normal and abnormal conditions; third, to know the cost of all food and its distribution in money and labor. Although the organization necessary to accomplish this is somewhat complex, the complexity is dependent upon the size of the hospital. Any hospital will show the same elements of organization and will differ only in the number of persons necessary to make this organization function.

The problems connected with the largest division in the department, that of routine feeding, are much like the problems in a hotel. Good food, well served must be produced in fairly large quantities at a moderate cost. Bad food is one of the traditional shortcomings of hospitals the world over. Why does the very term "hospital food" denote the ultimate of unsuitable and unappetizing meals? One reason, of course, may be that the necessity for extreme economy in many instances means poor quality to start with. However, most hospitals buy a good grade of food product and the failure to serve good food to patients must be due to one or both of two

*Read at the meeting of the New Jersey Hospital Association, Newark, November 7 and 8, 1929.

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causes—bad preparation or poor service. Each of these two causes depends on two underlying faults—inferior personnel and equipment that is inadequate and unsuitable.

A tendency is apparent now to make the feeding of hospital patients an unnecessarily complicated process. Variety has become a fetish. If we were to think of food in terms of qualities of suitability and availability from the standpoint of the patients the problem would be greatly simplified. It is not repetition alone, however, that causes us to dislike food.

Teaching Patients What to Eat

Instead of more special diets, there should be fewer. A reasonable modification of a properly selected general diet would be suitable for all except special cases. Dietitians pay too much attention to the stimulation of flagging appetites. Undoubtedly some regard must be paid to the likes and dislikes of the patients, but the stay in the hospital, which usually varies from fifteen to twenty days, should be utilized to teach patients what they ought to eat. This usually means a simplification of the diet rather than otherwise. Adapting the diets to suit the individual patients means the saving of waste in the hospital, without extra expense and with the cost actually reduced, and the serving of food for its therapeutic value, because the patient receives the diet not only as ordered but as served. Even cases not on special diets, that is, medical and nonsurgical cases, would make more rapid recovery if the diets suited their special needs.

Perhaps the biggest problem of any dietary department is the question of getting the food to the patients while it is hot. Central tray service is an interesting subject which has progressed considerably beyond the "idea" stage. With central tray service, there must be some artificial method of heating the food and keeping it hot, until it reaches the patient, or there must be an extremely speedy service from the central kitchen to the patient. This speedy service, which would perhaps be the simplest way of handling the central tray service, depends in great measure upon the personnel of the dietary department. If the carrying of trays and the serving of food after it gets to the floor diet kitchens are left entirely to the student nurses, the results will not be good. Perfection will be more nearly approached if the dietary department is supplied with enough help to assist in this work and with enough assistant dietitians. Even in a small hospital, it is quite necessary to have some experienced person supervise the work in the floor diet kitchens.

One of the most worth while problems to consider is that of the satisfied guest. It is obvious that the dietary department has much to do with satisfying the hospital guest. Proper hospitalization of the patient requires for him, in whatever department he may be, not only adequate nourishment with reference to the therapeutic value of food but also the supplying of good food, well cooked, properly seasoned and served hot, attractively and appetizingly. It is advantageous to please the ward patient for several reasons. He is our guest; the hospital is a community project and we must serve the community creditably; hospital food properly cooked and served has an educational value to the patient, who remembers everything that happened to him while in the hospital and recounts it to himself and to others many times after his return home. The satisfied ward guest advertises the hospital favorably, influences those who need hospitalization to accept their sojourn there more gracefully, and, incidentally, benefits a greater number of people.

It is not to be construed that undue consideration should be given to individual preferences except in rare instances. The important aim is to be certain that an appetizing, well chosen, nutritive meal reaches the patient who, in turn, cooperates with us by returning the courtesy and by consuming the food, knowing that we understand the reasons for the choice of foods on the menu.

For the private patient, who pays a rate entitling him to hotel service, it is not enough to discuss the quality of food. We must consider suitable equipment that will enable our employees to obtain the best results. We must set the patient's mind at rest as to the competence of our personnel and the sanitation of our culinary department, and as to the unquestionably high products that are in use. All this is conveyed to him, not by verbal discussion, but by the meals that are served to him three times every day.

When a selective menu is used, it is highly desirable that the patient shall have some help in marking the menus. It is recommended that the dietitian take time to visit the patients often enough to guide them. She discusses, if necessary, the foods on the lists and suggests substitutes as required. Incidentally, she gives the patient considerable training in the subject of dietetics. She may check over the returned trays and note the kind of food that is uneaten. She may refer to these results in future visits. She may make alterations in the menus. Such an intimate relationship is appreciated by the patient. The feeling arises that the hospital itself is particularly desirous to have the patients pleased with the food and with the food service. Waste of food is in a large measure done away with. The hospital thus builds up a strong bond between itself and each individual patient.

In the case of metabolic disturbances, the problem may be and often is one of great difficulty. The patient is often compelled to change his food habits, and unless we can help him to do this his hospitalization is a failure. The inventive genius of the dietitian is often taxed in order to induce the patient to take the food his dietary need demands, without depriving him of his gustatory delight.

A new régime may be absolutely necessary, but the patient must acquiesce in the arrangements and must consent to cooperate. During this time, the dietitian helps him with all the devices she can employ to retain some of his former enjoyments and yet conform to the dietary requirements.

Happy Patients Win Good Will for Hospitals

There is no better advertisement for a hospital than a happy patient. There is probably no place in the hospital that is more important than the dietary department. We must keep this in mind, for patients are not themselves—they are nervous and irritable. Trivial things to us are monstrosities to them. Therefore, all dietary departments must be properly organized. If they are not, efficient service is out of the question.

The responsibility for the scientific feeding of patients, rests entirely upon the dietary department. This necessitates an adequate staff of competent persons to carry on the various activities. The person who carries the trays or pushes the food truck must be efficient. The entire staff should conform to high mental and physical standards. A worker who comes on duty drunk or who gets drunk while on duty cannot be tolerated. The per-

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son with a low grade of mental ability cannot be chosen—even to do the most menial task. The dietitian and her staff should be governed by certain rules and regulations, which should be known and recognized by all.

The question often arises, "To what extent is the work of the dietitian necessarily routine?" We acknowledge the fact that adjusting food to the needs of most patients, keeping per capita cost within reasonable limits, and following market supplies, are all more or less routine. However, there is the same problem in relation to standard routine to be met with in dietetics that there is in medicine, namely, that one is likely to fall into routine methods and thus lose interest in the more difficult phases of the profession. Should one not instead accept the simple routine work merely as something to be done quickly, thus leaving time for the study of unusual problems? In dietetics, as in medicine, there are many points that are regarded as important but which, when attention is given to them, yield more important results than many of those considered as essentials. For example, is it possible that catering to appetite is more important than is ordinarily believed? Is the savor of food and the zest with which it is enjoyed of physiologic importance? Even if it is not of physiologic importance, is it of sufficient psychologic importance to warrant more study? Is it not possible that standard diets, like standard clothes, while perfect in utility yet so tire the mind that it seeks a constant but futile change?

The profession of dietetics is not more monotonous in its detailed practice than any other profession. But if monotony exists, it is probably because its details are too closely adhered to. If it is not possible to find within it something of special interest, then something of special interest must be found outside.

The field for investigation is large. Might we not find interest and also profit in the study, for sample, of what produces the tastiness of ordinary French cooking? While it is believed that the sharp flavors of the French meats and the French vegetables are for the most part due to the aversion of the French peasant to much washing of meat or vegetables before it goes into the pot, none knows the underlying secret of the French flavors, so tantalizing to the appetite and yet so impossible to reproduce. Another factor of French cookery is the preservation of food flavor. They insist that food shall be fresh when cooked.

The Joys of Research

There is another field of inquiry which has never been adequately studied, that is, the flavors of left-overs. Is it possible that a painstaking inquiry into this subject of left-overs or warmed-overs might take the curse out of the bread pudding of the army ration? Is it not possible that many new and more palatable methods of serving most food products might be found? And who is so well fitted to make such a study as those who have so much knowledge of the chemistry as well as the economies of food? If such a study were made with serious intent it would be graduate study; if made just for fun, it would be recreation. There is little difference between graduate research and recreation, if the work is done for the pleasure of it. Recreation is something that takes one away from the daily grind. Research does this. Therefore, research is recreation.

"Man does not live by bread alone," nor by the processes of obtaining bread, nor even by the serving of bread to others. Not only must one's work be kept ahead of the mind, but there must be something within and without the profession which adds savor to it.

When and Why the Dietitian Should Confer With the Architects

No matter how well the hospital building, the equipment and the tray service have been planned, the results will not be satisfactory unless it is understood throughout the entire hospital that nothing is so important, emergencies excepted, as seeing that the patient gets food while it is still hot.

This fact is stressed particularly by Helen Gilson, dietitian, Pennsylvania Hospital, Philadelphia, in a paper that was delivered by her at the annual meeting of the American Hospital Association in Atlantic City.

Dietitians should be allowed to attend the conferences of the architects when the hospital plans are in the making, she points out. Hospital planning is individualistic. Hospital planning along hotel lines has made the task of the dietitian tremendously difficult, since these types of service are by no means identical.

Although architects plan and replan, it is infinitely easier to tear up paper than it is to move water mains, steel, stone and bricks. Too often the architects call the dietitian and the equipment engineers into conference too late for them to make any workable contribution. An efficient piece of equipment may lose its value if placed in the wrong position in sequence of service.

Survey of Nursing Education in Canada Is Now in Progress

A survey of nursing education in Canada is now in progress, under the direction of Dr. George M. Weir, professor of education, University of British Columbia, the *Canadian Nurse* reports.

"At the request of the joint committee of the Canadian Medical Association and the Canadian Nurses Association, Doctor Weir has started his work in Ontario," the article says. "This starting point was decided on for two reasons—because it seemed desirable that at the outset Doctor Weir might be closely in touch with the members of the committee and because there are so many training schools in hospitals of various kinds within easy traveling distance of Toronto that it was felt the director, whose leave of absence from his university is limited, might make a concentrated attack with the minimum loss of time. After Ontario, the director will probably spend some time in Quebec and the Maritime provinces, then in the Prairie provinces and British Columbia.

"The first two months of the survey were spent in laying the foundation for the 'Study of Nursing in Canada.' In addition to the preparation of ten special questionnaires, Doctor Weir has held conferences and interviews, has made visits to hospitals, has attended lectures and demonstrations to observe the methods of teaching student nurses and has given psychological examinations to 300 student nurses. A prognostic study has been made regarding the student's leadership and possible success as a nurse based on these examinations. A community study regarding the nursing needs of a family of average means has been organized in a general way. This study has been carried out in cooperation with the social service department of the University of Toronto.

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Director, School of Nursing, Presbyterian Hospital, Chicago

Lessening the Turnover Among the Hospital Personnel

By MAUDE E. CALHOUN LYLE, R.N., B.S.
Assistant Superintendent of Nurses, Mt. Sinai Hospital, New York City

THE industrial world early recognized that exact methods could not be carried out successfully where the personnel was chosen haphazardly or was constantly changing. In discussions concerning hospital management, it is often argued that the operation of a hospital differs from other business activities and that the same principles of organization cannot be applied. That such a contention holds little or no merit has been proved unquestionably by many modern hospitals, in which the principles of administration, identical to those used in business, are successfully employed, the only difference being, possibly, the application of details.

Because modern management is of a necessity specialized and because personnel problems are always present, a department charged with the administration of personnel is as essential to a smooth running institution devoted to the care of the sick as it is to any successful industrial activity. Much time, thought and money have been spent on all phases of hospital administration, except the phase of personnel administration. Why? That question is not easily answered. Experiments in job analysis and in adjusting human relations during the World War have developed many facts, all of which are available and should be put to everyday use if the rapid turnover in the hospital field and the waste caused by "trial and error" methods are to be entirely eliminated.

The Need for a Stable Personnel

In spite of all the data thus obtained the round peg is still in the square hole. The personnel is here to-day and gone to-morrow. There are few hospital department heads who have not been driven to distraction by employees fitted for any tasks other than those assigned to them and who have not been exhausted many times by the repetition of instructions made necessary by the constant turnover in their departments.

The primary function of the hospital is to give the best of service to the sick. Everything else is of secondary importance. Whatever interferes with this primary function cripples and reduces the hospital's value in the community. Even the smallest hospital can be efficiently conducted only in terms of a well formulated organization, and the hospital, large or small, that clings to the old system of personnel administration cannot hope to compete with one that is properly organized to give efficient service.

Marshall classifies the "usual reasons" for employees leaving their jobs as voluntary and involuntary—voluntary because of work, pay or personal reasons and involuntary because of their unfitness for the job or because of personal character. The remedy for personnel difficulties in the hospital field as in other fields may be found in an efficient central employment department. The field of personnel relations in the majority of hospitals has been practically untouched. Standards need to be established, and the steps along which such an advance could be made should be guided by a consideration of the human element, the personnel supply, selection, personnel records, training, introducing employees, promotion, discipline, the amount of service and the wages and time.

Faults of the Planless System

Standardization from the standpoint of the human element has to be made through a study of the laws governing instincts that motivate much of human behavior. With jobs and capacities known, the ground is laid for scientific personnel management. Personnel supply under the old unsystematic, planless system was any group of individuals who sought employment at the office of the busy superintendent or those who responded to his miscellaneous advertising. Scientific management organizes supply in advance, seeks it out by scientific methods, classifies it and retains the list as a reserve. Selection instead of being based upon a side glance and a few hasty and stupid questions has developed into a system of adjusting the individual to the most suitable position through the use of standardized application blanks, references, records and interviews. Under the planless system the new employee was expected to acquire the details of the job as best he could. This has been proved to be a most expensive method and needs no discussion. Scientific management requires a planned system and a

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Pork and Beans	*Peas*	Beef Extract	Boneless Chicken
Beets		*Corn*	*Stringless Beans*

director who has adequate experience in this system.

Another fault of this planless system is its method of introducing an employee to his job. He may be told "go to the operating room and Miss Jones will find out what you can do." A substitute for this method would be a standard plan of introducing and adjusting the employee to his job. It would remove his feeling of uncertainty and strangeness, which sometimes amounts almost to a feeling of hostility, and would make him feel a necessary part of the organization. Under the planless system promotion is a matter of chance more often than not. Frequently a newcomer is given a good job in preference to a loyal employee. It should be remembered, however, that promotion according to ability and in recognition of service already rendered offers incentive to still greater service and creates a more harmonious organization.

Facts noted under the planless system are noted in memory only. In scientific management all facts worth preserving are noted on records, these to include promotion desires, turnover rate and all other facts that contribute to better human associations and more efficient service. To these records reference should always be made for data upon which to base changes in personnel relations. Discipline should rest upon the established standards and cooperation of the personnel. As the standards reach a high level, the question of discipline practically solves itself.

Analyzing the Job

The amount of service the employee may give rests upon his attitude toward his job, toward his co-workers and toward his employer. Even to a greater extent does the amount of service he may give depend upon the employer's attitude towards the employee, the help given him to analyze his job himself, the materials given him to use and the time he has for rest and recreation. Wages and time may be determined by the type of work the employee does, the responsibility attached to the job, the particular environment in which the service is rendered and the budget allowed.

Each job should be subjected to a careful analysis and upon this analysis the personnel department must build its work. The character and functioning of this department and its value to the hospital will be determined by the thoroughness of the job analysis upon which it rests. Job analysis should cover two things—the nature of the job and the character desired of the employee. The nature of the job should include the precise duties, the initial salary, the opportunities for advancement as well as all particularly unattractive features. The character desired of the employee should include special knowledge, skills, experience, commendable mental characteristics, a likable personality and ability to adjust himself to the job. It must be remembered that qualities change with environment. An individual who fails in one department may be successful in another.

By use of the method just described, the job is filled with the right individual and dissatisfaction is eliminated or greatly lessened. It is only when an employee is properly placed that he is happy or nearly so and can function efficiently. All things that result in better adjustment bring about a consequent reduction in cost operation. According to figures furnished by three of the largest corporations in this country, the cost of discharging an old employee and employing a new one has been estimated at $50 or more.

Among other causes of undesirable reactions among hospital employees are arbitrary management, indifference to the character of service and lack of expressed appreciation for faithful and efficient service. A substitution of knowledge for guesswork in management, a consideration of individual personalities, and the provision of an opportunity for self-expression and continuous growth would contribute greatly towards placing personnel administration in the hospital field on a par with personnel administration in other fields.

The Hospital's Greatest Assets

The greatest assets of a hospital are not its buildings, its equipment or even its organization of persons, but a spirit of cooperation, a search for wiser policies, better methods and a personnel composed of individuals who have not lost the power to think, to create and to grow. This is possible, and is consistent with the necessity for cooperation that must prevail in every successful hospital as well as in all other business enterprises. While these ideals are excellent, for practical purposes they are likely to be merely preachment unless there is a well organized employment department, with a director who is able to weld the human elements so that they may become in fact an integral part of the hospital's policies.

In the creation of this ideal situation for employees, which means, in turn, a pleasant environment for patients, the size of the hospital is not necessarily an important factor. Human interest can and should be manifested in every hospital from the smallest to the largest. The need for a personnel department exists in every institution. The essential factor in developing it to a high degree of efficiency is that the management must wish it enough to work for it. The operating cost of such a department has been estimated to be about 1 per cent of the annual pay roll.[1]

Personnel administration, then, is not a minor phase of hospital administration. It demands an executive whose vision extends in two directions. Looking in one direction, he must see the individual and his needs. Looking in the other, he must see the hospital's needs and he must organize and correlate the work in relation to this need. The job is a big one and the individual chosen to organize and direct such a department should be correspondingly big. Although aware of the fact that here as in a great many other jobs, women meet with opposition and that the opposition, not being a logical one, cannot be overcome with ease, I feel, nevertheless, that the most desirable person to fill this job in the hospital field is the graduate and experienced nurse. More than any other individual she should possess a knowledge of the field in which the personnel works, which is one of the essentials upon which leadership must be based. In addition to this essential, she possesses through the nature of her particular experience a special social skill which is sometimes spoken of as the talent for human relationships.

Qualifications of the Personnel Director

Whether the person chosen as the director of a personnel department is a nurse or a layman, the essential qualifications are a liberal education, broad experience, a knowledge of the right policy and a thorough understanding of human nature. He must be capable of organizing, directing, educating and leading—activities that require a knowledge of group psychology, sociology and the philosophy of education.

[1]Dr. Joseph Turner, medical director, Mt. Sinai Hospital, New York City.

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Getting the Maximum of Service From Sterilizers

By W. B. UNDERWOOD
Erie, Pa.

TO OBTAIN the maximum of service from pressure sterilizers there are certain fundamentals about their use that the operator must understand thoroughly. Any reasonably modern pressure steam sterilizer may be made to operate with perfect and dependable accuracy, provided certain underlying principles are followed. The make of sterilizer or its vintage cannot greatly alter these principles which always concern the method of securing steam penetration.

Late models of the better makes of pressure steam sterilizers are equipped with automatic devices that relieve the operator of certain somewhat exacting mechanical operations. These devices undoubtedly do permit a much greater accuracy of average performance because of the elimination of the human equation. Simple and accurate as they may be made, however, they cannot altogether relieve the institution from the responsibility for frequent inspections of the operating parts for assurance that the automatic features are functioning and that the discharge system is not clogged.

The following paragraphs will discuss the general features that need close watching in all types of pressure sterilizers in order that the sterilizer mechanic may avoid serious difficulties or overcome them should they develop.

Fundamentals of Sterilizer Operation

Wet dressings and incompletely sterilized dressings invariably result from the failure to discharge air and condensation from the sterilizing chamber. This failure may be due to faulty operation or to a clogged condition of the discharge system. The only permanent remedy that can be offered for this possibility of trouble is the exercise of eternal vigilance in the care of the apparatus. Steam cannot permeate any sterilizing chamber adequately unless ample provision for air discharge is provided. The physical properties of steam are such that it rises to the top of the container to which it is admitted, compressing any air contained in the chamber at the bottom. For this reason sterilization in any make of apparatus will always take place at the top first. Any check of sterilization should be made on goods lying at the extreme bottom, since those goods will be the last to be affected by the steam.

In older forms of pressure sterilizers of all makes, too much dependence was placed on the effectiveness of the vacuum system of air discharge. The vacuum process undoubtedly does rarefy the chamber air but under the most favorable conditions in practice the preliminary vacuum of eight or ten inches disposes of not more than one-third of that air. Unless the remaining two-thirds volume may be disposed of, sterilization will be slow and always uncertain. How to dispose of the remaining air and be sure that it has been exhausted is the one outstanding problem of steam sterilization. It is obvious that since the air lies at the bottom of the chamber and that since condensation will always drain there, an opening in the bottom will permit the air and condensation to escape. That is precisely the principle on which older sterilizers functioned, that is, a valved connection from the bottom leading usually to a pail on the floor. This is shown in Fig. 1.

Inaccurate performances result invariably from the

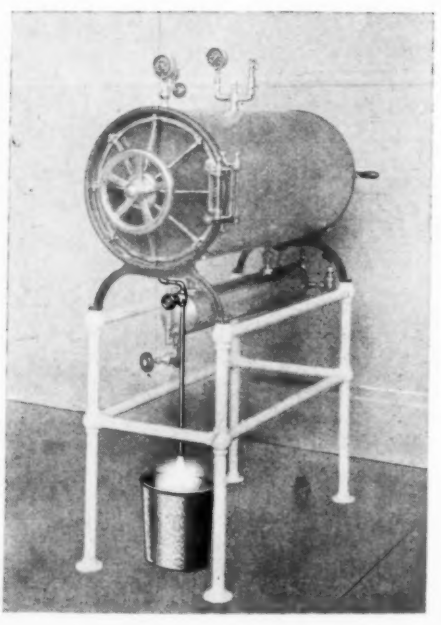
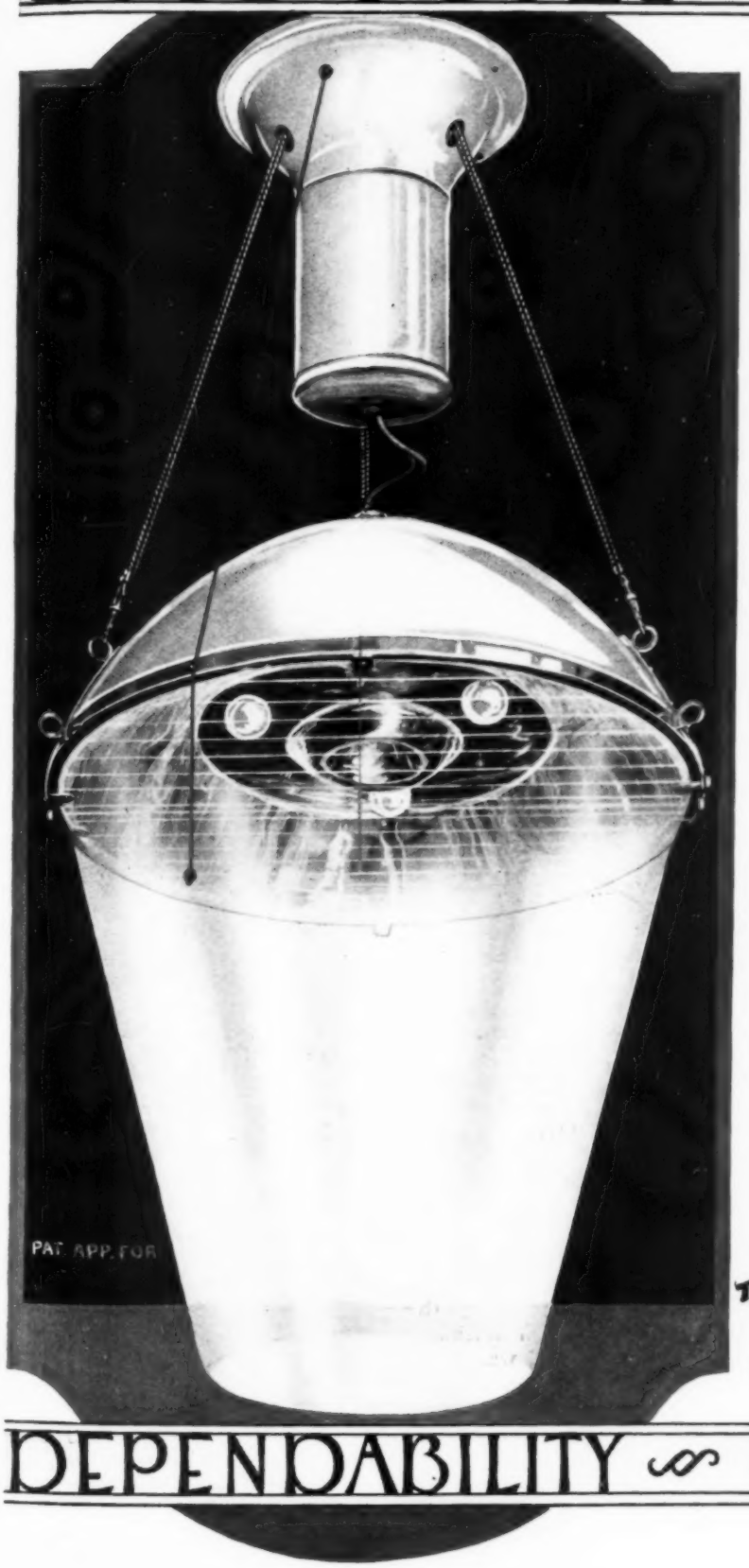


Fig. 1. An older type of sterilizer is pictured here, with a valved connection from the bottom leading to a pail on the floor.

The RIES-LEWIS



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improper use of this valve, but sterilization of the greatest accuracy is easily accomplished in such sterilizers if this definite procedure is followed: Maintain the jacket pressure at from eighteen to twenty pounds. Create an initial vacuum of from eight to ten inches. Turn the steam into the chamber, and as soon as the chamber gauge shows one or two pounds' pressure, open the drain valve wide and leave it so for five to eight minutes—never less than five minutes. Then close the drain valve until only a slight opening remains—just enough to discharge condensation—and leave it so opened until the end of the period. Wait until the chamber gauge indicates fifteen pounds' pressure. Then note the time and regulate the heat to maintain between fifteen to eighteen pounds in the chamber for the following thirty minutes. Then discharge the steam in accordance with the usual practice. The widely opened drain valve in from five to eight minutes' time, depending upon the size of the sterilizer and the character of the load, will discharge essentially all air from the chamber, thus assuring that necessary penetration without which sterilization cannot normally occur.

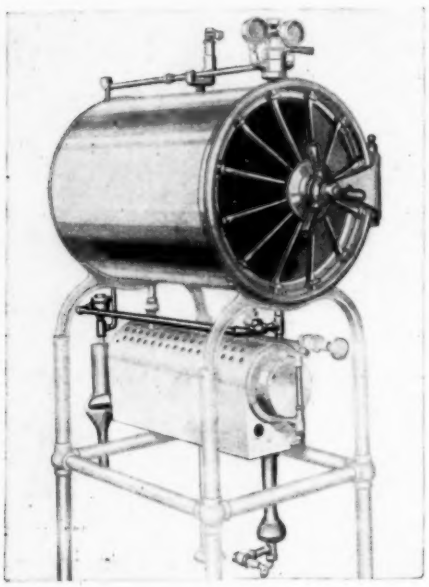

Fig. 2. This illustration of a dressing sterilizer shows the automatic discharge system that the mechanic should clear.

The usual perforated tray in the bottom of the sterilizing chamber is an essential. The space underneath it permits a passageway toward the drain outlet for air, which is driven downward by the pressure of steam above throughout the length of the chamber. Without the tray, loose packages would completely fill the bottom chamber space and clog the air passage. Drums should always be supported by a carriage or carrier which will provide a similar air space at the bottom. They should never be placed in the sterilizer without a carrier or tray.

A Dependable Method

Repeated temperature tests have proved the perfect dependability of the method of sterilizing just described. They show definitely that any radical departure greatly interferes with the performance. For example, in a given load of loose packages, the time required to sterilize was more than doubled by the omission of the perforated tray.

Most modern sterilizers substitute for the drain outlet with its hand controlled valve, a system of piping containing a delicate thermostatic steam trap which conducts the discharge into a sanitary exhaust system that does away with the unsightly pail on the floor. The action of the thermostatic trap takes the place of the manipulation of the drain valve. It remains open at the beginning for the free discharge of air as steam enters the chamber and closes only when hot steam reaches it. It opens thereafter at intervals to discharge condensation as it accumulates. The obvious advantage of this system is that it eliminates the need for a definite performance on the part of the operator which, if neglected, may result in nonsterilization. Such apparatus is exceedingly accurate and dependable, so markedly so that operators are prone to forget that the system may easily become clogged with lint or cotton and pins and sometimes with congealed vaselin or glucose, the presence of which causes the valves to become sticky or closed altogether.

Trained Mechanic Should Be Available

There is also the possibility that the hand discharge system may become clogged. With either system it is highly essential that a careful sterilizer mechanic should make a thorough inspection frequently. With the hand operated system, it is obvious that a clogging of the discharge piping will prohibit the passage of steam and condensation into the pail on the floor. This the operator will immediately detect. With a closed system, the nurse's first intimation that anything is wrong will be the appearance of wet dressings and the accumulation of water in the bottom of the sterilizer. When this occurs the mechanic should be called immediately to clear the system. Otherwise, sterilization will not occur.

Fig. 2 indicates the automatic discharge system which the mechanic should clear. The clean-out plug, if any is provided, should first be removed and thoroughly cleaned. The check valve and steam trap should be taken apart and washed with gasoline. It is possible that lint and pins may have accumulated in the discharge outlet from the sterilizer itself which may require that this pipe leading directly from the sterilizer be disconnected and cleared. Whether or not any trouble is reported, the sterilizer mechanic at weekly intervals should make a thorough inspection of the air and condensation discharge system on every pressure steam sterilizer.

The underlying principle of steam sterilization requires the actual contact—complete and thorough penetration—of moist steam with the materials to be sterilized. Should an attempt be made to sterilize gauze or other materials in closed containers, such as enamel ware or glass jars, with the covers on and without the provision of portholes for the free access of steam, the help of some superhuman agency will be needed if sterilization is to be attained.

Fortunately most new gauze is delivered in a reasonably sterile condition but it cannot be safely assumed that it has not been contaminated in handling. If it is to be sterilized in any kind of a container, free access for steam must be arranged for by the complete removal of covers or by the provision of portholes in the sides through which steam may gain access. In many respects, enamel ware or glass jars are convenient as containers for gauze during sterilization, but if they are used the covers must be removed within the sterilizer and replaced before the jars are taken out. This, of course, involves a certain break in technique which is not desirable. Standard drums with portholes are much better suited to the purpose.

Steam, in order to sterilize, must make actual contact with the materials undergoing sterilization. Gloves properly prepared for the sterilizer presumably have been thoroughly washed. Gloves wrapped in tight bundles with

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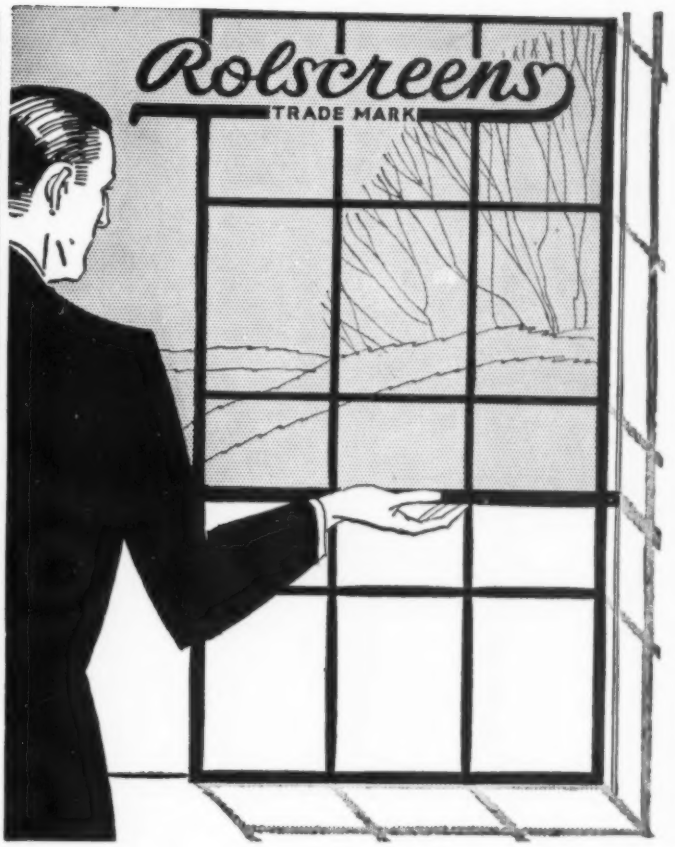

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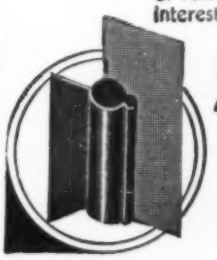

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surfaces in close contact with each other prohibit the possibility of steam penetration to the interiors. Naturally those parts to which steam does not penetrate escape sterilization if they have originally been contaminated with difficult organisms.

The interior of each glove up to the fingers should be loosely filled with a pad of some porous material, such as gauze. The section of the wrist which is turned back, should be folded over a little pad of gauze. A pair of gloves thus prepared should be loosely contained within the folds of a generous sized wrapper so that the fingers will not be cramped or folded. Packs of gloves should be so placed within the sterilizer that collapsing weights will be avoided. Gloves so handled can be safely sterilized at fifteen to sixteen pounds' pressure maintained for fifteen minutes in any reasonably good sterilizer. Higher pressure or material increase in time will result in injury to the glove fabrics.

Advantages of Pressure Steam Sterilization

Pressure steam sterilization of instruments and utensils is becoming popular as the obvious advantages of the system become better known. For many years it has been the practice to sterilize instruments and utensils by boiling them in water for periods ranging from five to twenty minutes. This procedure has never been perfectly satisfactory since it leaves something to the imagination because difficult spore bearing organisms are sometimes not killed even after boiling for twenty minutes. In addition most raw water contains a considerable amount of impurities, such as lime and magnesia, which become deposited upon the surfaces of instruments or utensils undergoing sterilization. The proper use of pressure steam sterilizers overcomes both of these difficulties. Pressure steam destroys all known organisms in a comparatively short time and steam leaves no deposit on the surfaces of instruments or utensils.

The sterilizing process for instruments and utensils is exactly similar to the one followed for dressings except that a much shorter period of sterilization suffices since the instruments and utensils offer only surfaces with which the steam must come in contact. There are no dense packages of materials to be penetrated. Considerable experience has shown that the maintenance of steam at eighteen to twenty pounds' pressure for five to ten minutes suffices perfectly for complete sterilization. Delicate instruments with sharp points or cutting edges can be sterilized in pressure steam with no perceptible injury. The process requires that the sharp points or cutting edges be protected by a wad of cotton or gauze which prevents mechanical injury and also absorbs free moisture from the delicate points or edges so that they dry off quickly without tarnishing.

Use of the Diack Control

The Diack control is in general use for the detection of inaccuracy in pressure steam sterilization. The control consists of a chemical substance in tablet form contained within a small glass tube. Subjection to a sterilizing temperature for a time sufficient for sterilization will cause the tablet to melt and change color. Properly used, it serves a necessary purpose beautifully. If improperly used, it is dangerously misleading. It has been shown in a previous paragraph that sterilization occurs first in the top of the sterilizer and the last place to which the steam will penetrate is the bottom section of the chamber. Therefore a Diack control to indicate complete penetration should be inserted in the heart of a package lying on the tray of the sterilizer, preferably in or near the center from front to rear. If the control in that position melts during a given sterilizing procedure, it is reason-

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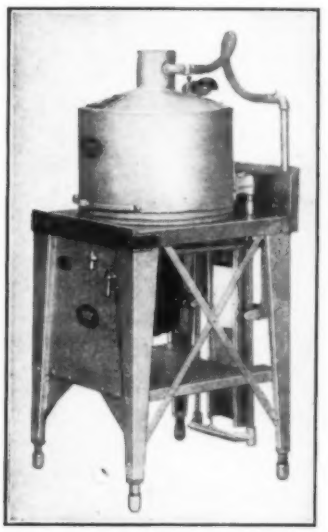

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ably certain that the steam will have penetrated to every other section of the sterilizer. To indicate how important this matter is, it may be noted that in a moderately well filled sterilizing chamber, it is comparatively easy to melt controls in the extreme top in less than ten minutes' exposure, but that in the same sterilizer the controls, if properly placed in the bottom, might not melt in less than thirty minutes' time.

If controls are used in dressing drums, considerable care must be taken to place the control in a package within the drum and then to place the drum in the sterilizer so that that package will be at the bottom. Otherwise the use of the control may be misleading.

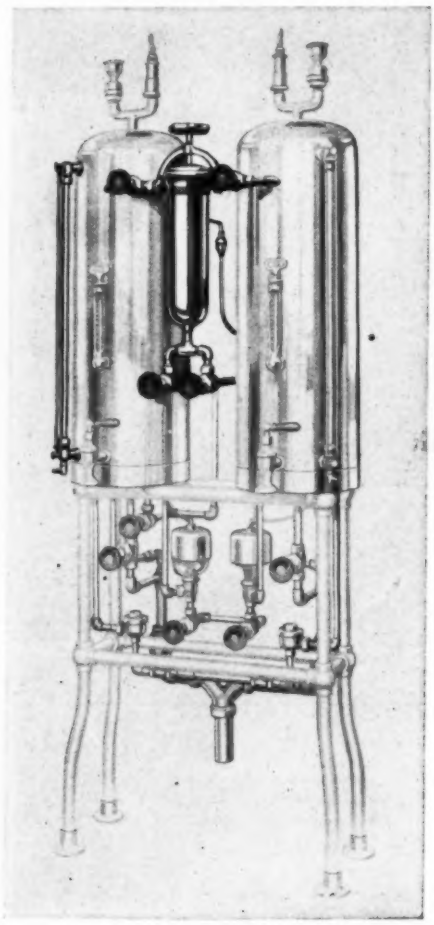

Fig. 3. The water sterilizer filter shown here has four valves—a raw water connection, a valve to drain the filter and two valves for conducting filtered water to the reservoir.

One who has not been intimately associated with sterilizing procedures in many hospitals does not fully appreciate the inaccuracy that can creep into any hospital in the matter of sterilizing with pressure steam. The use of Diack controls guards to some degree against improper performances. When several individuals, however, are using the same apparatus, there is a tendency to variation from an exact performance which sometimes becomes serious. The use of a recording steam gauge immediately indicates to the operator and to the supervisor any deviation in the matter of maintained pressure or the period of sterilization.

How Chart Shows Pressure Used

The chart shows at a glance what sterilizing pressure is being maintained. It indicates variable pressures which may be due to the heating system or to the control of the sterilizer, either hand or automatic, and it shows perfectly the period of sterilization. If the operator is called away during the sterilizing process, upon her return she has an unfailing record of what occurred during her absence. At the close of the day, the supervisor

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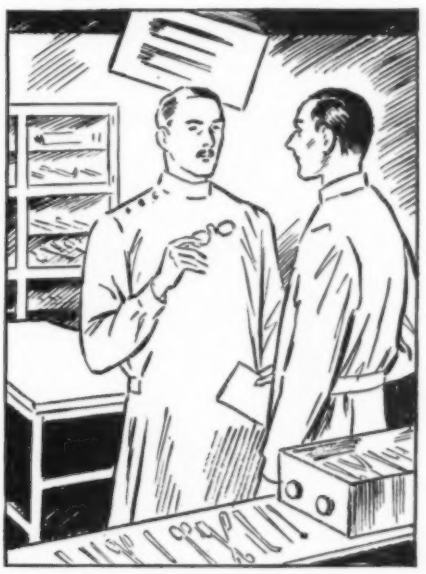

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can check the chart to ascertain whether or not the various performances of the day have been carried out with accuracy and uniformity. The chart may indicate to her the need of better instruction of which she would otherwise be unaware.

A recording thermometer, seemingly a more desirable device, is necessarily somewhat delicate and subject to the need for recalibration which cannot be accomplished desirably by any person other than an expert. The recording pressure gauge serves every necessary purpose. It is not so delicate, and if it gets out of adjustment it can easily be recalibrated by an ordinary mechanic. In addition, the bulb of any recording thermometer must be placed in a fixed position somewhere close to the walls of the chamber. It cannot be inserted in the heart of the load where it is desirable to read temperatures. Instead, it is freely exposed to steam. For this reason its readings are likely to be misleading.

Proper Operation of Filter Valves

It is recommended that every pressure sterilizer for dressings shall be equipped with a dependable recording steam gauge and that the supervisor of nurses be required to check the daily charts and file them with the superintendent of the hospital as a permanent record.

Each water sterilizer filter requires four valves for proper operation: a raw water connection to the filter, a valve to drain the filter and two valves that conduct filtered water to the two reservoirs. Figure 3 illustrates the usual hookup. If the filter drain is closed and if the raw water valve leaks or is not tightly closed, and if one of the filtered water valves leaks a bit, there is nothing to prevent raw water from leaking directly into a sterile water reservoir. If the operator forgets to close the raw water valve and forgets to open the filter waste, the full pressure of the water supply will be carried to the two filtered water valves, either of which may leak slightly. Consequently, the leakage would conduct raw water directly to the sterile water.

Some water sterilizers are equipped with telltales that indicate the incorrect usage of the raw water filling valve and the waste valve. A telltale so used consists of a small funnel into which a tiny stream of water will discharge, which is visible to the operator when either reservoir is being filled with filtered water. If any water escapes through this telltale at any other time, that is conclusive evidence to the operator that the raw water valve is open and that the waste valve has not been opened. Both of these conditions are wrong and must be corrected at once. If the filter waste is open, the raw water will of course discharge directly into the waste, thus freeing the sterile reservoirs from the possibility of contamination. No means has ever been found for evading this possibility of sterile water contamination other than the telltale. Every operator of water sterilizers should be cautioned never to neglect the full opening of the filter waste valve immediately after filling the reservoirs.

Care of the Filter Stone

The stone through which water is filtered accumulates the extraneous matter contained in raw water. In a short time a coating of filth becomes deposited on the outer surfaces of the stone and unless the stone cracks, the passage of water will be greatly hindered, sometimes entirely stopped. If the stone contains a crack, the water will pass through the crack without being filtered at all. Stones will crack if subjected to unusual heat such as will be admitted to the filter casing if the operator neglects to close the filtered water valves leading to the two reservoirs. Without frequent scrubbing, the stone,

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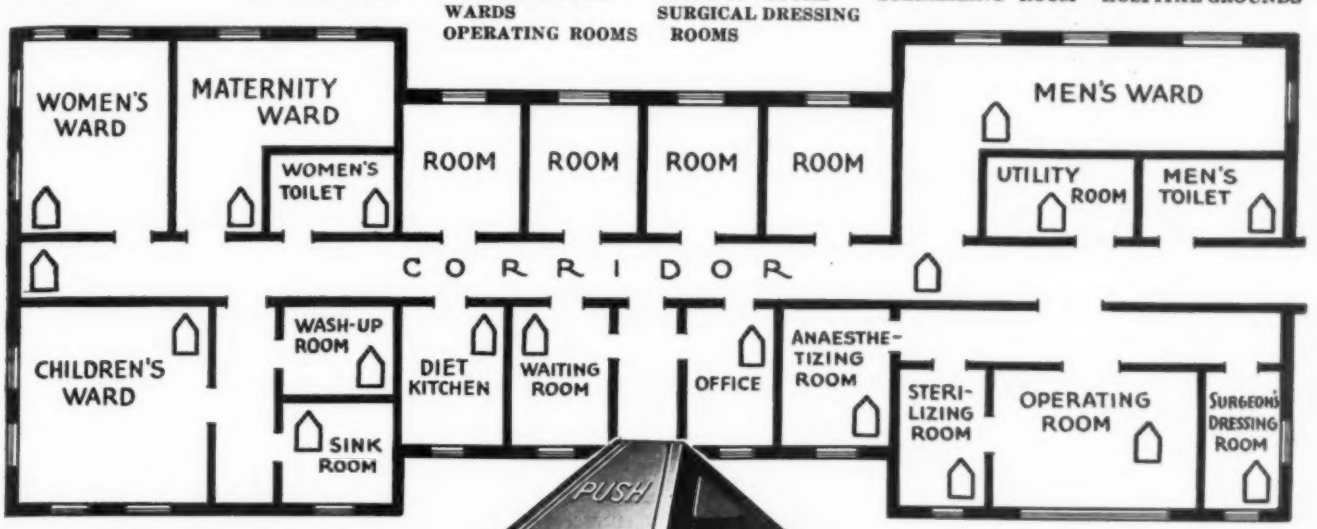

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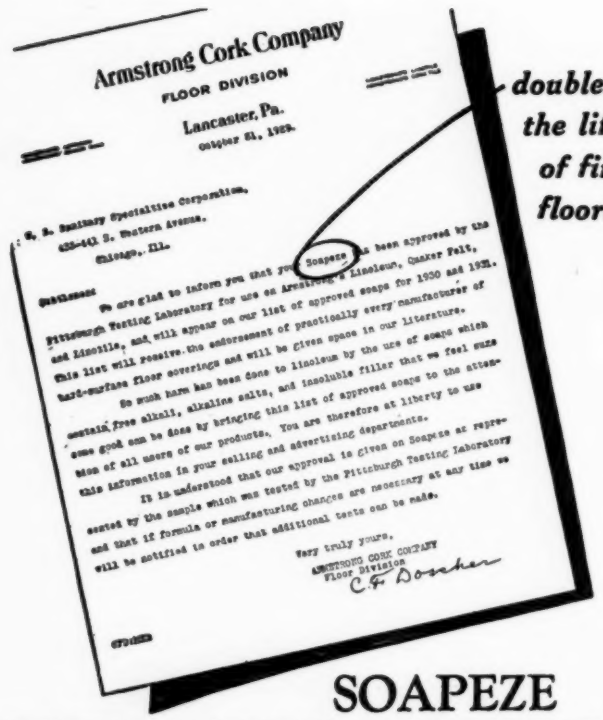
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So much harm has been done to linoleum by the use of soaps which contain free alkali, alkaline salts, and insoluble filler that we feel sure some good can be done by bringing this list of approved soaps to the attention of all users of our products. You are therefore at liberty to use this information in your selling and advertising departments.
It is understood that our approval is given on Soapeze as represented by the sample which was tested by the Pittsburgh Testing Laboratory and that if formula or manufacturing changes are necessary at any time we will be notified in order that additional tests can be made.
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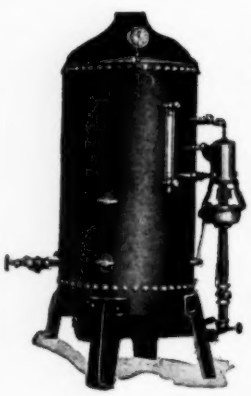

The gas fired boilers are built in sizes from ½ H.P. to 30 H.P. and are used generally in hospitals as auxiliary boilers.

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especially if cracked, becomes an excellent breeding ground for bacteria, since it is between the two reservoirs, one of which is nearly always hot, which furnish more or less the required temperature for bacterial growth. It is exceedingly important that each filter stone be removed from its case, preferably twice a week, for a thorough scrubbing with a stiff brush. If the brush does not remove the covering of dirt completely, the filter stone should be scraped with a dull knife. Do not use any stone if the slightest crack appears.

Sterile water should not be permitted to stand in any reservoir for more than twenty-four hours without resterilization, since it is possible that the water will become recontaminated.

Steam Flushing the Gauges and Draw-Offs

The water in a gauge glass normally does not circulate perceptibly when the reservoir is undergoing sterilization. The water in the gauge therefore remains unsterile or at least its sterility is decidedly questionable. Automatic devices for the circulation of gauge glass water during sterilization, while seemingly desirable, are open to criticism. The connections to them are necessarily very small tubes which may easily become clogged with lime and thus be made altogether inoperative. The one safe procedure with all types of water sterilizers, whether or not those sterilizers embody the automatic steam flushing principle, is to require the operators to steam flush the glasses after each sterilization. This requires little time and will overcome a condition of unsterility that eventually may prove serious.

Immediately after the sterilizing period is over, and before the heat is turned off, close the bottom gauge glass valve which connects to the reservoir. See that the corresponding valve on the top gauge fitting is open. Then open the drain cock on the bottom fitting and catch the contents in a pitcher, permitting steam to flow for half a minute. This will discharge the unsterile water and steam out the gauge itself sufficiently for sterilization purposes. Then close the drain cock, open the valve that connects the bottom fitting to the reservoir and the glass will fill with sterile water. Unless this performance is carried out religiously, the glass will gradually become clogged and foul with sediment and, under certain conditions, it may even become an excellent breeding place for bacteria. Similarly the draw-offs from sterile water reservoirs should be steam flushed daily following sterilization. This may be done by drawing the discharge into a pitcher of a pint or so of steaming water.

Free circulation of steam through the heating coil or jacket of the sterilizer, as the case may be, is as essential for heating a sterilizer as for heating a radiator. If for any reason, the return system becomes clogged and prevents this circulation the sterilizer, like the radiator, will perform sluggishly or not at all.

Heating the Sterilizer

Many heating systems in older hospitals make no provision for steam trapping individual sterilizers. Instead, they trap a group of sterilizers, possibly several groups, with a single trap that is sometimes in the room and sometimes in the basement. It is unavoidable that with this hookup, where several sterilizers may be in use at the same time, a pressure nearly equal to that of the incoming steam is built up in the return. This naturally precludes the possibility of satisfactory heating. The performance, therefore, will be sluggish, erratic and annoying.

Quick heating and anything approaching a maximum of general efficiency in the use of steam for sterilizers can be attained only when each fixture is separately

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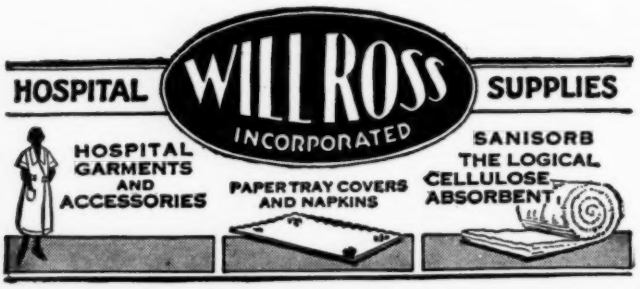


trapped, preferably with a thermostatic trap designed for high pressure work, which will not only discharge condensation freely but also any air that may be in the line after it has been standing idle over night. In such a system, the main return must be of the nonpressure type discharging into a vented receiver. Hospitals that are operating with an obsolete heating system of the kind described will effect an appreciable saving in operating costs and at the same time avoid serious delays in sterilizing or erratic performance of sterilizers, which is distinctly opposed to good technique, by the installation of a modern heating system even though the expense is considerable.

Automatic Control of Sterilizing Pressure

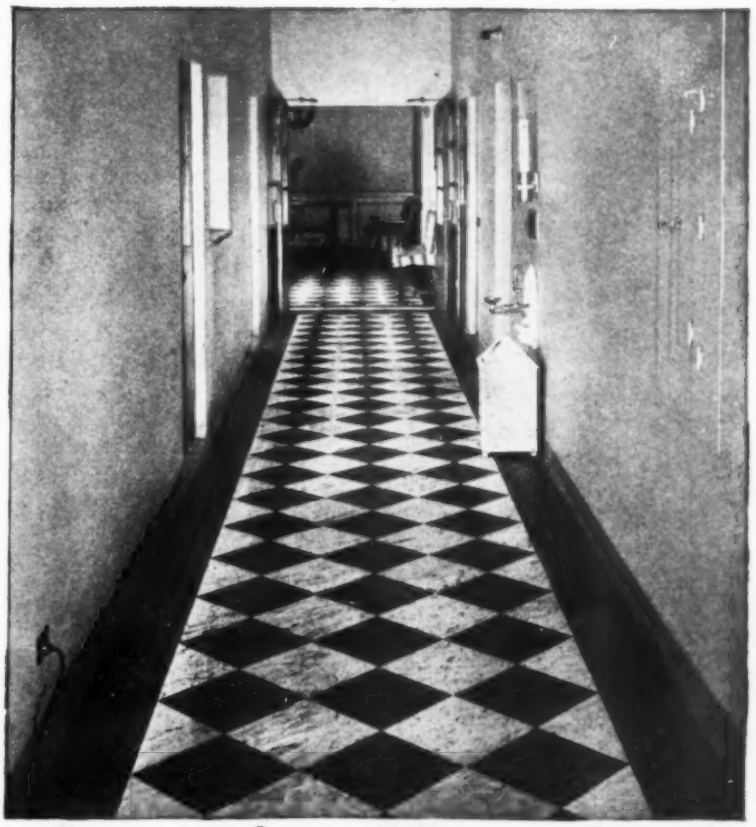
It is possible for the operator of any pressure sterilizer to control the steam or the gas or the electricity so carefully that a close regulation of sterilizing pressure may be maintained. Unfortunately any hand control system requires that the operator remain close to the sterilizer for more or less constant adjustment of the hand controls, as the pressure goes up or down. Such careful watchfulness is usually impossible to attain in any hospital and the result is erratic maintenance with safety valves often exhausting which is annoying to the surgeons or with the pressure frequently dropping below the minimum range.

There are available automatic devices for steam, gas and electricity, the use of which will elimintae these difficulties, leaving the operators free for other duties during sterilizing periods. Every pressure sterilizer of every type should be equipped with a dependable automatic appliance for the maintenance of sterilizing pressure within a reasonably close range to secure that accuracy of maintenance that is necessary to good performance and exact technique.

Frequent Inspection Necessary

Every sterilizer in the hospital should be subjected to a thorough inspection by a competent mechanic at some predetermined time at least once each week. This mechanic should be familiar with the functions of the sterilizers, as well as with the mechanical details. On his rounds of inspection he should check each pressure steam sterilizer for leaky gasket. He should make sure that the air and condensation discharge system is free and open. He should lift the safety valve lever on each sterilizer to be certain that the seat is free. He should check the door locking mechanism and oil the moving parts of it and he should check the automatic pressure control apparatus, if any, to make certain that it is properly adjusted. He should remove each water filter stone to see that it has been properly cleaned and that it contains no leaks. He should test the drain valve from the filter to see that it is open. He should make sure that the operators are steam flushing gauge glasses every day. He should check the automatic pressure control, if one is provided, and adjust it if necessary. He should test the safety valves. He should make sure that the discs on supply valves are in proper condition for tight closure, and he should check against stem leakage of each hand control valve, replacing the packing where it is needed and properly tightening each stuffing box. He should test the heating equipment on every sterilizer to be sure that it is functioning properly in all respects.

It is quite probable that if this work is done systematically and frequently, a few hours each week will suffice to keep the apparatus in excellent working condition in the average hospital. It is certain that the process will obviate many annoying and sometimes serious difficulties that otherwise would arise.



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View of corridor in Children's Hospital, Akron, Ohio; Good & Wagner, Architects; Pattern—checker board diagnal.

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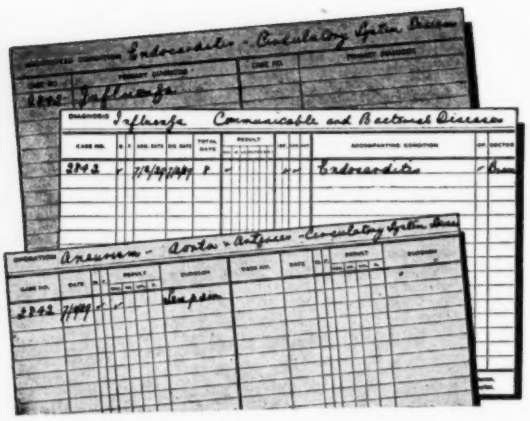

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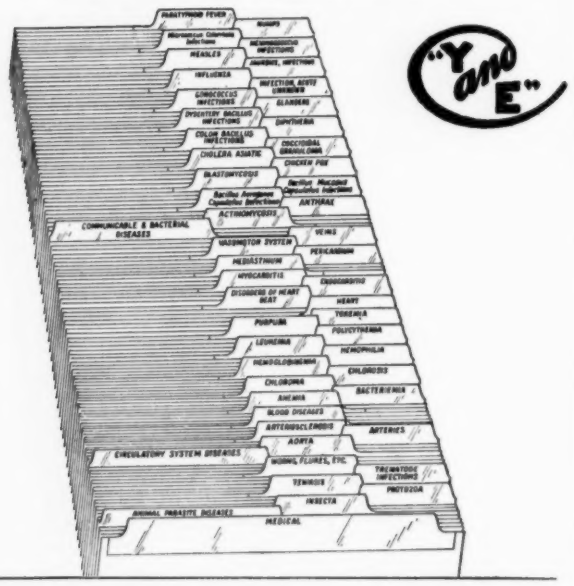

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Preventing the Pollution of the Hospital Water Supply

How the back syphonage of polluted water through plumbing fixtures may be prevented by the use of proper plumbing equipment is shown in the recent development of vacuum breakers that may be applied on any plumbing fixtures that have a submerged inlet for the water supply.

A recently perfected vacuum breaker closet flush valve is so designed and constructed that, should a vacuum be created in the supply line, the vacuum breaker valve would prevent the back syphoning of any of the contents of the closet bowl, or of any other fixture on which this vacuum breaker flush valve is installed. Vacuum breaker valves have also been developed for use on other types of fixtures having submerged water supply inlets. They serve the same purpose—that of preventing back syphoning of the contents—as the vacuum breaker closet flush valve.

Function of Vacuum Breakers

In order to understand how these vacuum breakers function it is well to know what causes back syphonage. If the outlet of a plumbing fixture that has a submerged water supply inlet is submerged below the water level of the fixture, and if the water supply line from which other fixtures are also supplied is closed for repairs or for other reasons and a faucet from some fixture is opened for drawing water, a vacuum immediately takes place in the water supply line which syphons into the water supply piping the contents of the fixture at the places the water supply inlet is submerged. This makes possible the drawing of the contents of the fixture through any one of the supply faucets that are connected directly with the same water supply line.

Such a condition might be due to low water pressure. Back syphonage could occur if the water pressure were not sufficiently strong to permit the drawing of water simultaneously on any one of several floors from the same water supply line. For instance, the outlet from a plumbing fixture that has a submerged water supply inlet—say, on the third floor of a building—may become stopped or clogged. Or the water supply inlet may be below the normal level of the water in the fixture that is being used, such as a bath with a submerged bell supply. If the water pressure is not sufficient to permit water to be drawn from the same water supply line on two floors at one time, in drawing water from the fixture on the lower floor a vacuum would be created in the supply line between the second and third or the first and third floors. This makes it possible to syphon the contents of the clogged fixture, or of the one with the submerged water supply inlet below the water level of the fixture on the third floor into one of the plumbing fixtures on one of the various floors below.

Pollution a Menace to Hospitals

These conditions, insofar as the back syphoning through plumbing fixtures is concerned, would be possible in any type of building in which plumbing fixtures are installed. They are, however, considered more serious in hospitals, because of the purpose for which they are used. It is an accepted fact that hospital patients are in a weakened condition generally and have a low resistance power to germs of any kinds. Particularly is this true of patients who have open wounds as a result of operations. This type of patient, therefore, is more subject to post-operative infections in the presence of a polluted water supply.